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ABSTRACT

This document consists of 6 years of newsletters (eight issues) of the Industrial Training and Education Division (ITED) of the Association for Educational Communications and Technology (AECT). The ITED Newsletter maintains communication about professional matters within the Industrial Training and Education Division. This document contains newsletters for the following dates: Spring 1991, February 1992, March 1992, January 1993, March 1993, February 1994, January 1995, and January 1997. Topics covered include: awards to ITED interns; minutes of ITED board meetings; conference schedules; AECT issues; and articles on current topics relating to instructional design, distance education, information technology, focus groups, energy efficient computing, an addition to the AECT Code of Ethics, and the effect of computer use on eye health and vision. (SWC)

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ITED Newsletter 1991-1997

Andrew R.J. Yeaman, Ed.D.

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ITED NEWSLETTER

Spring 1991 *Industrial Training and Education Division, Association for Educational Communications and Technology*

Training Awards Return In October

By Chip Ingram

The ITED Training Awards are back!

The ITED Training Awards Program honors outstanding industrial training programs. In the past, we have given awards to exemplary technical and professional training programs in the military, finance, computer, and education fields.

An Awards Committee evaluates the entries according to criteria like fulfillment of stated objectives, sufficiency of primary and support materials, language style and clarity, instructional design, production quality, and others. We will announce the winners at the annual ITED Business Meeting at the Washington, DC AECT Conference next winter, as well as in the *ITED Newsletter*.

Instructions and materials for submitting a program for consideration will be available by mid-summer. If you want to be sure of receiving them, contact

Dr. Albert L. Ingram
Instructional and Training Technology
Governors State University
University Park, IL 606466

Office: (708) 534-5000
Fax: (708) 534-0054

Deadline for the submission of training materials for the Training Awards Program is October 15, 1991. Submission fee is $35 for ITED members and $50 for nonmembers. All materials will be returned after the committee has made its decisions.

Entries may be in the form of a media production or an effective curriculum or course. Plaques will be presented to the winners of 1992 ITED Training Awards at the February Business Meeting.

NSPI President Challenges Instructional Design Profs

By Robin Taylor

Marc Rosenberg, president of the National Society for Performance and Instruction (NSPI), gave the keynote speech at the annual DID Luncheon in Orlando. An attentive group of over 50 instructional design professionals, including professors in graduate ID programs, heard the appeal for radical changes in the preparation of instructional designers.

The commentary also reflects on ID roles in business and an edited version appears here in the *ITED Newsletter* with the permission of Marc Rosenburg.

Building Bridges to Business: Opportunities and Challenges for Academia

As NSPI President, I have traveled across the country and spoken to many student interns, practitioners and training managers. Because I consider a strong academy vital to the future of the field, I am alarmed by the lack of influence the academic community is having on business leaders.

I am beginning to see the trivialization of instructional design, when strategic expansion is called for. I am concerned that instructional designers are not considered serious players in the corporate game.

Continues inside on page 4

Job Aid for ITED Newsletter Writers

The purpose of the *ITED Newsletter* is to maintain communication about professional matters within the Industrial Training and Education Division.

Send articles and announcements to the editor: Dr. Andrew R. J. Yeaman, Yeaman & Associates, 601 West Eleventh Avenue #1103, Denver, CO 80204.

Telephone: (303) 534-5749.

Fall issue deadline: September 23.

Submit articles as hard copy and text file. The preferred file format is the 800K double density Macintosh disk.

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Election results and new plans announced

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Paraguayan Bank Chooses Distance Education For Staff

By Mary C. Muller

Consultancy opportunities for instructional technologists often arise in Third World technical assistance projects but usually the consultant has to convince the client that innovation and change are necessary.

This was not the case with the National Development Bank of Paraguay where the bank president specifically stated that his organization needed distance training. As the consultant called upon for this assignment I was particularly pleased to discover this insight.

Training programs designed for large scale organizations are fast becoming the latest professional challenge of instructional technologists not only in industry here but also internationally.

The National Development Bank of Paraguay initiated a full scale training program for all professional employees in 1981. Since then they have divided their staff development needs into three levels: the entry level, the middle management level and the advanced level.

The growth of the bank and the proliferation of information technology made it urgent for the planners in the bank to look for innovative training. With 50 branch offices throughout a country with underdeveloped transportation it was becoming increasingly difficult and expensive to meet training needs.

In 1988 the bank president decided to use an instructional design which could address the needs of cost containment and continuous updating of staff with a distance training system. The bank chose to experiment with a three component system:

1) training materials designed for self instruction
2) use of bank mail delivery
3) use of branch managers as training supervisors.

The training materials included audio cassettes and print materials.

During the feasibility phase the participants in the development of the training system learned that self instruction demands a strict discipline and that instructional technology demands rigorous work.

The distance training was evaluated by the bank directors and managers as viable and worthwhile.

Wisconsin-Stout Student Thanks ITED For Her $1,000 Internship "My MidWinter Week's Dream"

By Peggy Cordell
Graduate Student, Media Technology
University of Wisconsin—Stout

After winding down from my professional "high" and returning to the doldrums of graduate life, I have given considerable thought to the experience extended to me through ITED.

Attending the AECT conference in Orlando is a memory I will cherish.

I sincerely hope to be at future AECT annual conferences in the years to come.

The internship gave me opportunities that wereindeed learning experiences. These opportunities seemed very appropriate for an internship. They included chairing sessions, attending division and council meetings, hosting the ITED booth, and attending social events.

The most important lesson learned was that AECT is a body of professionals dedicated to the expansion of their knowledge base by relying on themselves, as resources, to share their expertise with others.

That kind of networking takes commitment on the part of the presenters and officers and allows other members the opportunity to gain first-hand knowledge about new developments in our field.

Attending the convention in Orlando has prompted me to consider several future alternatives.

First, it has given me incentive to apply for a scholarship to attend the AECT Leadership Conference this summer in Scottsdale, Arizona, where I will have the opportunity to sharpen my organizational skills.

Second, if (or when) I return to Montana, I may pursue the formation of a local AECT chapter to afford professionals there the same opportunities to share information as the more densely populated states.

Third, my options remain open in respect to choice of careers when I finish my master's degree in August of this year.

There are so many different and varied opportunities to pursue within this diverse field; to follow a preselected career path seems self limiting.

As far as ITED is concerned, the division, although small in number, is big in terms of quality. The officers and members are well organized and well informed tightly woven group; yet welcoming of new faces and new ideas.

My thanks go out to the members of ITED, with special thanks to Joanne, Robin and Len.

You made possible my midwinter week's dream and for that I am eternally grateful.

Minutes Of The ITED Board Meeting In Orlando, Florida

By Helena DeLeeuw

The Industrial Training and Educational Division Annual Meeting was held at the Orlando Marriot Hotel on Sunday, February 12, 1991 at 10:00 am.

President Robin Taylor called the meeting to order and introduced the ITED executives.

Incoming President—Len Arychuk
President Elect—Joanne Willard

The state of the Division was disclosed:

Based on April 1, 1990, there are 286 members.

As of January 31, 1991 this fiscal year, there are 133 credited members.

$2,286 is left in the budget. These monies will be used for program planning in Washington, DC this year, along with other general operational expenses

Joanne reported that ITED sponsored three workshops, 13 sessions and one internship at this year's AECT Conference.

Peggy Cordell, 1990 intern, was introduced. She is studying in Media Technology at the University of Wisconsin.

Peggy chaired three sessions and attended assembly and business meetings and general interest sessions. Her duties included observing AECT operations. Originally she had taken out a loan to come to this convention and was very pleased to be chosen as our intern to enhance the study of leadership skills.

Joanne noted that Peggy was selected from four applicants.

A review of the bylaws on September 4, 1989 by the members of the ITED Board generated these suggested revisions:

The President is responsible for the budget.

All executives are elected for a two year period. The Board of Directors serves a one year term.

A procedure for the removal of nonperforming officers was carried last September 1989.

A proposal was given by the President to put together a revisal of these bylaws and explanations. Unanimous.

Kurt had done some of these revisions and they were presented to the President.

It was noted that there is a lack of guidance for people representing the division in AECT assembly/convention planning/divisions/bylaws/other activities. Robin announced that she is working on a management handbook to assist in communicating procedures and expectations to current executives, directors and future officers. Outstanding acceptance. This handbook will be transferred from year to year to each set of officers.

The assembly delegates for next year will be Robin, Joanne and Len. The alternates will be Chip Ingram and Kurt.

Concerns for future AECT conventions:

A decision has been made by the national office to pull out of Infocomm and do our conventions alone or join with another group or groups.

It is in our best interest to consider input, approval and funding for convention attendance.

The AECT Conference must have more than K-12 content to adequately represent the field of educational communications and technology.

AECT has 37 resolutions of which 17 are related to convention issues.

Joanne reported that she would be going to Washington this year for the planning meeting. The theme is Capture the Vision. Proposals have to be filled in completely before April 12, 1991. Three copies will have to be submitted. Workshop proposals will have to be approved.

New President Len Arychuk reported the 1991 election results and named the new Board:

Past President—Robin Taylor
President—Len Arychuk
President Elect—Joanne Willard
Secretary—Gerry Stoloff
Members at Large—Chip Ingram and Jim Stonge
Appointment:
Newsletter Editor—Andrew Yeaman

A special activity for 1991 will be creating a new image for the ITED booth.

The $1,000 convention internship will continue in 1992. The exemplary training awards will be organized by Chip Ingram.

Meeting adjourned.

Quote Of The Month

"Trust in *what* you love, continue to do it, and it will take you where you need to go. And don't worry too much about security. You will eventually have a deep security when you begin to do what you want. How many of us with our big salaries are actually secure anyway?"

Natalie Goldberg (1986, p. 2)

Writing Down The Bones: Freeing The Writer Within. Boston: Shambhala.

Marc Rosenburg Speaks At AECT Orlando Convention

Continued from page 1

Successes

Instructional design has come a long way in the past two decades. ID is being embraced in organizations throughout the world. The "technology" of ID has become universally accepted, and there is less argument around the basic concepts of the field. The field is maturing. Through internships, most students who get jobs in business have some practical background. The employability of your graduates is high. However, the current recession may slow the growth somewhat; there is already a decline in the number of internships being offered.

Corporate training managers are getting more involved in the profession. For example, the NSPI Advocates program provides opportunities for essential partnerships between the two groups.

Opportunities and Challenges

We are characterized, for the most part, as a tactical, overhead, and service-oriented function within business organizations. The opportunity is for current alumni and future graduates to become a more strategic, business investment-oriented force within the organization. The challenge for us is how to get there.

And the time is now. Human capital, performance, productivity and competitiveness are at the top of the business agenda. More attention than ever is being given to people: employees, executives, and customers.

This is the key: To prepare your graduates to contribute in this environment, the academic community must be prepared to consider some important challenges.

The Demand for Flexibility and Responsiveness

Graduates tend to stick to "the" ID model they were taught. They lack flexibility, especially in improving efficiency and working under constraints. They do not know what to skip and what not to skip. Thus, the ID process takes too long and frustrates management.

"Training is important only as it contributes to business results."

The opportunity here is to teach a more flexible approach to ID, including rapid prototyping and concurrent design. Further, we as a profession must do more to educate management about the benefits of our technology and get them involved as our partners in preparing future professionals.

The Need for Strategic Involvement

ID is a "tactical" process, designed to develop effective and efficient learning programs for which others often must devise the strategic implications. This means fitting ID and its products into the life of the business, and understanding its impact and contribution to organizational effectiveness, competitiveness, productivity, earnings, etc.

CEOs care little, if at all, about ID. They care greatly about performance. In global business strategy, training is important only as it contributes to business results. The opportunity lies in the interdependence of training and performance improvement on results, competitiveness, and productivity. This has implications for the context in which ID is taught, specifically in getting students to consider the interrelationship between training and other performance improvement and business interventions, and to integrate these interventions within ID.

The Movement from Learning to Performance and Business Results

The measurement of success of ID projects based on learning gain is insufficient. The opportunity is to re-center our results orientation squarely on Kirkpatrick's level three and four evaluations. Senior executives want performance and care far less than we'd like to think about learning. When you teach students evaluation strategy based solely on measurement of learning, you may be instilling a results orientation that is inconsistent with the needs of business.

The Need for a Long Term Look at Careers

Careers in ID are, because of their tactical nature, entry level. Some very good ID practitioners may become supervisors of their peers and an extraordinary individual may become a training manager. But business decisions dictate what training does, and rarely does a training person rise to a business decision level.

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IT stands for Information Technology

Much training should be eliminated.
Much training is really information dissemination.
Training is expensive and ought to be a last resort.
Information technology is appropriate.

Marc Rosenburg Speaks

Continued from page 4

The result is that IDers leave the field in order to rise in the company, or leave the company to become consultants (usually, tactical consultants). Before this decision is made though, the morale of IDers can become very low.

The opportunity is here to help students understand typical career paths for themselves by looking ten or more years into the future. Teaching a business and strategic orientation, perhaps through partnerships with business schools, can be really helpful.

The Rise of Information Technology
In more and more companies, especially outside the training department, IT does not stand for Instructional Technology but stands for Information Technology. More and more, we are asked to create information programs and systems, to write documentation, and to create performance support systems.

"Senior executives want performance and care far less than we'd like to think about learning."

The opportunity here is fourfold: (1) to acknowledge that much training should be eliminated; (2) to understand that much training is really information dissemination, and that the two are quite different; (3) to recognize that training is expensive and ought to be a last-resort intervention; and (4) to understand that information technology is appropriate for us to pursue.

Successful practitioners will be those who recognize these distinctions and can affect results in either arena. Academic programs must accept information technology and be comfortable in teaching it.

Production versus Design
Since I have been at AT&T, I have never done media production. Yet my media training has helped me communicate with production people and evaluate their outputs. That training took almost one-half of my courses and we cannot afford all that time any more. Can you compress it?

"Do faculty themselves need internships?"

Perhaps by limiting production experiences to computers and video, you can teach better design, selection and evaluation of media within shorter time frames.

The Need for Strengthening Faculty Influence on Business
There isn't a business manager I know, and very few training managers, who read the ID literature. The fact is, most faculty write to each other. Business people make consultants rich because *they* communicate the advances to business in ways it can digest and apply. Why don't we get articles in the *Harvard Business Review*? Why aren't ID academics cited in the myriad of articles on education and training that have appeared in *Business Week* over the last year?

As more and more students opt for business careers, you might ask how many of you have worked extensively in this environment. Do faculty themselves need internships?

Conclusion
To meet these challenges in a reasonable time frame requires new thinking within the academic community. Can your graduates be more flexible in their processes? Can they become strategic partners with their business leaders? Can they prove their worth? Are they getting a long-term view of their careers?

"Business needs you, but they need you in their world."

Can they work in information technology? Do they have the right balance of production and design training? Are you, the ID faculty, making a serious effort to communicate to the people who employ the large majority of your graduates?

These are the challenges I believe you face in building bridges to business. I can tell you that there are great opportunities there. Business needs you, but they need you in *their* world. Success here may be the biggest challenge of all.

Notes From The Editor's Electronic Workstation

Marc Rosenburg's speech raises important questions about our field. Not only are many organizations in the information business but also training and education are becoming commodities. Jean-François Lyotard's *The Postmodern Condition* describes further changes in knowledge.

Robin Taylor's report sets a high standard for the *ITED Newsletter* and contributions of similar depth are invited. Also, an expansion of my piece on Human Factors from the last *ITED Newsletter* appears on pages 19-21 of the November 1990 *Training & Development Journal*.

Here is a question for consideration. By what criteria would you rate the *ITED Newsletter*? See Donald L. Kirkpatrick's chapter in the 1987 *Training and Development Handbook*. Reaction? Learning? Behavior? Results?

Qualitative Studies Eligible For $500 Special Research Award

A special prize of $500 from the ECT Foundation will be awarded for the best qualitative research report on educational communications and technology. The Special Research Award is sponsored by RTD and is open to qualitative studies of all instructional areas including industrial training and education.

In addition to $500, the winner will receive a certificate of achievement and present the paper at the 1992 AECT Convention.

Qualitative theories and methods may be applied from areas such as cultural anthropology, history, social psychology and sociology.

Anyone may enter. Submitted papers must report an original, unpublished qualitative research investigation.

Applicants are encouraged to examine these three books:

Jaeger, R. M. (Ed.) (1988). *Complementary methods for research in education.* Washington, DC: American Educational Research Association.

Kirk, J. & Miller, M. L. (1986). *Reliability and validity in qualitative research.* Beverly Hills, CA: Sage.

Miles, M. B. & Huberman, A. M. (1984). *Qualitative data analysis: A sourcebook of new methods.* Beverly Hills, CA: Sage.

Manuscripts must be less than 35 double spaced typed pages and prepared according to the *Publication manual of the American Psychological Association: Third edition.* Manuscripts will undergo blind review. The author's name should not appear anywhere in the manuscript except on the cover sheet.

Entry form

A completed entry form must accompany manuscript copies. Copies of the full competition announcement with instructions and an entry form may be obtained from:
AECT, 1025 Vermont Avenue, N.W. #820, Washington, DC 20036, Attention: Special Research Award.

Submissions

Entries must be postmarked by September 15, 1991. Send a completed entry form and six manuscript copies to:
Dr. Landra L. Rezabek, Chair, Special Research Award, Instructional Technology, College of Education, Box 3374, University of Wyoming, Laramie, WY 82071.

ITED NEWSLETTER

Dr. Andrew R. J. Yeaman, Editor
Yeaman & Associates
601 West Eleventh Avenue #1103
Denver, CO 80204

ITED NEWSLETTER

February 1992 *Industrial Training and Education Division, Association for Educational Communications and Technology*

AECT Discusses Merger With ISTE

The AECT Board of Directors has begun discussions with the International Society for Technology in Education (ISTE) Board of Directors on a variety of topics that will make a stronger Association in the future.

ISTE is the leading professional society serving the educational computing field and was formed when the International Council for Computers in Education and the International Association for Computing in Education merged in 1989. ISTE is the administrative headquarters for NECC, providing conference, management, and coordination support. ISTE currently has approximately 6,700 members.

Officers for ISTE met with the AECT Board of Directors in August, and the AECT and ISTE Executive Committees met in October to establish the framework for future discussions on topics including joint memberships, joint publications, joint conventions, and other types of cooperative efforts.

The rapid merging of the educational computing technologies ISTE members work with, into the instructional technologies AECT members work with, provides the common ground between the two associations.

Both AECT and ISTE have strengths that are complimentary to one another. Working together on joint activities and projects, the two associations can have a greater impact and exert more influence than either association can alone.

The AECT Board of Directors has scheduled a special Board Hearing during the 1992 convention to give members an opportunity to express their views concerning the relationship being developed with ISTE.

Board Member Calls For Action

by Jim Stonge *ITED Board Member, AECT Board Member elected by the AECT Affiliated Organizations Council, FETA Chair and Past President.*

This will be an extremely important convention for determining what happens to AECT. A merger may take place with ISTE, the International Society for Technology in Education.

Industrial training and corporate education should be part of this future. The leaders of AECT and the division officers will listen to the members' voices to assist in making the best decisions. ITED members need to be sure their voices are heard so that AECT continues to represent their interests.

A goal established by AECT last summer was to not be a dying organization. Three alternatives seem possible. The first is to die. The second is to plod along. The third is to grow.

The last choice is the preferred scenario. However, being viable requires an involved membership.

This is your opportunity to get active. Serious work needs to be done that is dependent on members identifying their concerns and acting.

The AECT organization is going to change one way or another. The Association will not exist in five years with the structure that it has today. ITED issues such as nontraditional learning are essential to our field but may only be included if we speak out. Our voices must be heard. If you speak loud enough, the change can be your change.

Job Aid for ITED Newsletter Writers

The purpose of the *ITED Newsletter* is to maintain communication about professional matters within the Industrial Training and Education Division.

Send articles and announcements to:
Dr. Andrew R. J. Yeaman,
Yeaman & Associates,
601 West Eleventh Avenue #1103
Denver, CO 80204-3555

Telephone: (303) 534-5749

Spring issue deadline: March 13

Submit both hard copy and text file on computer disk. Call first to arrrange transmission by fax or email.

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Send in a membership form today

Canadian Training Project Gives Technical Assistance To Tanzania

Technical Training Associates International and the British Columbia Institute of Technology, Vancouver, British Columbia, Canada is presently offering technical assistance to the National Institute of Transport. The contract start date, at the time of writing is pending.

The team members are specialists with experience in a variety of developing countries. In addition each member has substantial knowledge in skill based practical training, and curriculum development. BCIT has been providing practical training services for 25 years to thousands of Canadians including pedagogical training of faculty in practical production-oriented training techniques, skills-based curriculum development and provision of customized programmes for students from abroad.

Len Arychuk, ITED President, who has been selected as the Automotive Engineering Specialist, is a qualified master mechanic and pedagogue. His expertise will blend with NIT faculty to develop their practical teaching and skills-based curriculum development.

On a recent two-year assignment in Indonesia, Len's responsibilities were to improve the quality of teaching of programmes in automobile, commercial transport, diesel engine and small engine mechanics.

Presently, Len is developing course lines for apprenticeship training in Commercial Transport Mechanics and Heavy Duty Mechanics.

In addition to this, in the past, he has developed distant learning programmes for the Open Learning Institute and the Knowledge TV Network for British Columbia and the Canadian North.

At BCIT, aside from his teaching load, Len has assisted instructors to develop learning objectives, design instructional packages, develop curricula, lessons plans, training aids, and evaluation schemes. Developed, in co-operation with local educators, practical and theoretical training programmes capable of being adapted to the requirements of the local work force. Assisted in the design of workshops, selection and installation of workshop equipment.

Dar es Salaam (meaning "Haven of Peace") is located on the east coast of Africa in Tanzania. Dar is a beautiful city, around one million and a half population with a rich cosmopolitan culture. The harbour is fringed with palms and mangroves and it is one of the few places in the world where you can see Arab dhows and dugout canoes amongst ocean freighters and liners.

Official languages are Swahili and English. Zanzibar is only a few hours away and so are safaris and botanical gardens.

Tanzania is comparable in size to the State of California. The climate varies from tropical to cool highlands, 98 to 70 degrees F. It is recommended to wear light tropical clothing all year round. Evenings can be cool so bring along a light jacket or sweater. The rainy season is March through May.

Currency is a Tanzanian shilling worth about 90 per US Dollar or 175 per British Pound.

The Tourist Industry has about 60,000 visitors annually.

Sites to see are plentiful: Lakes Malawi, Manyara, Tanganyika and Victoria; Gombe and Serengeti National Parks; Mkomazi and Selous Game Reserves; and of course, Mt Kilimanjaro, 8904 metres high and snow capped.

Food is great!!!! Traditional African, Chinese, Indian and many Vegetarian Restaurants. Lots of seafood and a good steak is possible. Ideal for the enthusiast at heart.

Potentially, this will be a very interesting contract, with many learner and presenter views in a society different from the North American Continent. Good International and ITED future presentation material.

In from three to eight years, we will have a machine with the general intelligence of an average human being. I mean a machine that will be able to read Shakespeare, grease a car, play office politics, tell a joke, have a fight. At that point, the machine will begin to educate itself with fantastic speed. In a few months, it will be at genius level, and a few months after that, its power will be incalculable.

Marvin Minsky (1970) quoted by Theodore Roszak in *The Cult of Information* (1986, p. 122)

A technology is a design for instrumental action that reduces the uncertainty in the cause-effect relationships involved in achieving a desired outcome.

Everett M. Rogers, *Diffusion of Innovations* (1983, p. 12)

The night manager came back, holding the check as he might a used disposable diaper. "They stopped payment on this."
"The banks are closed, how'd they do that?"
He spent his work life here explaining reality to the herds of computer-illiterate who crowded in and out of the store. "The computer," he began gently, once again, "never has to sleep, or even go take a break. It's like it's open 24 hours a day...."

Thomas Pynchon, *Vineland* (1990, p. 91)

A Letter To The Members From The ITED President

Dear ITED Colleagues

In early February '92, the AECT National Conference will take place in Washington, D. C., one of the cities that I have always wanted to visit.

Please join us at the Conference and at this year's Annual Membership Meeting. Watch for the announcement at the Conference for the exact date and time.

A Hearty WELCOME to New Members for joining a group of very dedicated people striving for a common goal in the Educational and Industrial Community.

Through the efforts of Chip Ingram, Gerry Stoloff, Jim Stonge, Robin Taylor, Joanne Willard and Andrew Yeaman we will be sponsoring many meetings and presentations.

THANKS to all of you! !!

Dick Cornell, past President of International Division, has an interesting article in this Newsletter, make sure that you read it.

Thanks, Dick.

Many other people have also contributed to this ITED Newsletter. Andrew, of course is responsible for assembling it.

Thanks, again to all of you! !!

My year has been a very hectic one and I had to depend a lot on my executive to carry the load. This has been an example of teamwork. Workload was a little heavier than expected.

Atthe time of writing, I should be at the Conference and am looking forward to meeting you.

Sometime in early 92, my job, takes me to Dar es Salaam, Tanzania, in the central East Africa constline to work towards setting up training for the Transportation industry, similar to what was done in Indonesia, a few years ago.

More about that in an article in this Newsletter.

During the conference, we will need your help to staff the ITED information booth.

If you can spare an hour, come and meet us and volunteer. Indicate that you would like to be involved!

Wishing you a Prosperous Year.

Len Arychuk,
President, ITED

5109 Dominion Street,
Burnaby/Vancouver,
British Columbia,
V5G 1C8,
Canada.

Instructional Technology Well Represented In San Francisco At The ASTD Conference

By Mary C. Muller

At the American Society for Training and Development conference held in San Francisco, the Instructional Technology matrix offered 16 sessions.

Hardware topics included expert systems, computer disks and interactive videodiscs.

Many of the sessions stressed an alignment of the principles of instructional system design with corporate strategies.

Among the industries which identified their ASTD topics to be in the instructional technology matrix were Northwest Airlines, Merck and Co., Shell Oil and Federal Express.

In the session presented by Federal Express self-directed training of geographically dispersed employees through mainframe applications was presented as an example of employee empowerment. Because Federal Express has won the prestigious Malcomb Baldridge Quality Award this session was regarded as one of particular significance for those interested in systematic training.

Throughout the conference various industry groups gave presentations which demonstrated the importance of applied instructional technology.

Jack Bowsher, former director of education for IBM, has written in "Educating America", that the systematic approach to education, that is, applied instructional systems design, will do more to improve the quality of education in the United States than any other remedial strategy.

It is obvious that the exponential growth of two global industries, telecommunications and information technology, demands cost/effective educational management.

This cost/effective educational management can only be achieved through a systematic approach.

Linkages and partnerships between the academic and business communities are being established and at the ASTD conference many success stories emerged.

Instructional technology was well represented at ASTD's convention.

Performance May Be Where It's At...But It's A Technology Base That Undergirds It!

By Richard A. Cornell

If CEO's do not value our expertise then it is we who have to educate them as to why they need us! When training is the first to go in times of fiscal cutbacks, why does this seem to happen with such frequency? We've failed to communicate to them how absolutely critical we are to their continued survival! How to do this, I ask, in response to Marc Rosenberg (Spring 1991, ITED Newsletter).

We can lament the fact that CEO's don't care about learning models or this or that technology base but that won't cure the ailment of poor communication. A CEO wants clear and direct language, devoid of in-field jargon, and which clearly describes the benefits of having us around.

CEO's, no matter if they are in industry, business, or education, all have a bottom line to which they must adhere. If not, their stockholders show them the door. That bottom line is profit and accountability reigns. Profit need not always take the form of dollars - it could well be increased test score levels, more widgets per hour, less on-the-job absence, or increased loyalty to the company.

We know how to address these symptoms, we have access to the tools and technologies which can confront the problem and take corrective action. We can do this because we have the education and background necessary to diagnose the illness, administer the medicine, and monitor the patient's road to recovery. It is encompassed within sound instructional design practices.

When was the last time you asked your boss, "Let's take a few minutes, I want to update you on some new ideas we're trying, some really great results we had last week, and a complication in our approach where I know your insight would help us." When was the last time your boss asked you to do that?

What might have been some of these "new ideas, really great results, or complications?"

"Instruction is important because it brings results. What we offer is, in fact, the wave of the next century."

Possibly, after conducting a needs assessment, you found that the problem related not to training but to communication. This finding just saved you and the firm many dollars, hours, and talent which can now be used to address other tasks.

Perhaps the results of a recent CAI application, originally developed for another purpose, can be applied to other areas within the firm and, in making this fact known, you have once again, improved the fiscal picture.

CEO's and managers seldom see such results but, when they do, it validates you and the profession.

Complications with the project? Thankfully, you discovered them early and communicated them to management quickly. Your own vulnerability paid dividends rather than losses because you had the foresight to recognize a potential problem and act on it immediately.

Strategic planning is the key. Instead of continually putting out one fire after the next, we need to get ourselves in a quiet place and plan! Plan for now, plan for the future, and plan some more. Anticipate what could go wrong.

Given this solid planning within oneself, we can now step back and analyze, see the reality of the setting and find clarity in doing so. With clarity we remain objective and can then envision what needs doing. With clarity we can act on those tasks which need doing and interact with the boss to open the communication links.

Aside from clarity of who we are and what we do, having communicated all of this to the CEO, we need specific strategies to convince both the CEO and the stockholders, that what we do has comparable worth. In short we need to justify our existence.

Let's take a phrase from Marc. "Business needs you but they need you in their world." Take advantage of this need, it's already there and we have but to capitalize upon it!

Can you, as director of training or trainer, or instructional designer, articulate why business needs you? Can you track the relationship of the training materials developed to successful task performance? Can you point to increased safety records of a given airline or trucking firm to a specific training program you or your team developed?

That's your very bread and butter trucking down the highway or flying above you. If you don't know the results of what you've done, who does?

This is a common criticism of our field. There is always funding to design and develop but not for evaluation!

Find the funds, track the results, convince the CEO that, without your talent, such results would have been long in arriving.

Performance Technology

Continued from page 4

Part of the problem, of course, is that we find ourselves having to compare technological apples with traditional oranges. There is the compulsion to measure outcomes using tradition-bound paper and pencil response systems when the delivery mechanism was one of a non-traditional format.

If we fail to rigorously document cause and effect results, we are dooming ourselves to defeat. We know that interactivity yields results, good ones. We know that students like being involved, as long as the involvement has clearly defined objectives and equally defined and measurable outcomes.

If we know where we're supposed to go and have a clear picture of the road we'll travel enroute, then we will really look forward to the trip. Conversely, if the path to be taken is filled with ambiguity and uncertainty, confusion, despair, and disgruntlement result. As instructors or the designers of instruction, this is our responsibility.

A clear instructional road will result in clear and positive outputs by our students. Such outputs, if sufficiently ingrained, will in turn, result in appropriate performance. It might even result in good, better, or best performance! Now that's how we need to measure what we do and then make sure the boss knows it as well.

Instruction is important because it brings results. What we offer is, in fact, the wave of the next century.

If we are left behind we'll have none other than ourselves to blame.

We have the tools, we have the know-how, we have the talent to effect change, be it social or professional.

When will we stop talking to ourselves and begin talking to the world?

Workshop Offered By Experienced International Consultants

By Mary C. Muller

Every year the International Division of AECT offers a workshop on International Consulting for Instructional Technologists.

The objective of the workshop is to present information on opportunities for instructional technologists to participate in various types of international development program; to learn about the different demands of the international marketplace and to learn about the feasibility of the adaptability of U.S. programs.

All revenue is contributed to AECT. Half goes to the national office and half to the International Division.

People in the corporate sector as well as self-employed members of ITED should find this workshop useful and relevant.

Three Elected From Assembly To AECT Board Of Directors

Three new members were elected during the Assembly at the 1991 convention to the AECT Board of Directors.

They are Lynn Milet, representing AECT Divisions, Ron Payne, representing AECT State Affiliates and Jim Stonge, representing AECT Affiliated Organizations.

The new Directors will assume office during the 1992 convention. Lynn, Ron, and Jim have each met with the AECT Board on two occasions to prepare themselves for their new leadership roles.

Notes From The Editor's Electronic Workstation

- This newsletter is going to the student members of AECT to let them know who we are and what we do. An ITED membership form is included.

- I taught a graduate course in Instructional Technology for the University of Colorado-Denver last fall, in addition to enjoying my freedom as a consultant . This term I am teaching two evening classes for Metropolitan State College. These direct experiences with students are helping me develop questions about our field.

- How is our media work affected by deconstruction and post-modern resistance? In one hand I hold Roger Kaufman's *Strategic Planning Plus.* In the other hand I hold Denis Hlynka and John Belland's *Paradigms Regained.* Consequently, for the AECT conference I organized a symposium on Ethics and Critical Theory. The symposium takes place Thursday afternoon at 2:15.

- I am pleased that Marvin Harris was recently honored for his distinguished intellectual contributions by the American Anthropological Association. My article in the fall, 1990 *Canadian Journal of Educational Communication* applies his interesting and practical theories.

- The Aldus Corporation started the year off by sending out letters asking their customers for yet another $75.00. They want to update my PageMaker program from version 4.01 to version 4.2. However, their slogans about new and improved may have little effect. At this time my computer seems quite productive with 1991 software that is "old" and proven.

ITED Sponsors Sessions At The 1992 AECT Conference

Check times, changes and rooms in the Washington, DC conference program.

Wednesday, February 5, 1992

Achieving Training Effectiveness
9:30am-10:45am
Convention Center,
Sponsors: ITED, DISC, MDPD

Effective Media Strategies for Training Programs
Julie Furst Bowe, University of Wisconsin-Stout
Marian Smith, University of Wisconsin-Eau Claire

Effectiveness and Efficiency of Interactive Video Training with Learner Control
Kimberley J. Harris, Florida State University
John K. Burton, Virginia Tech

Compressed Video and Satellite-Based Business Television
11:00am-12:15pm
Convention Center
Sponsors: ITED, DOT
Sachs presents critical issues for selection of compressed video systems. Johnson will present case examples of the successes achieved by implementing satellite-based business television as a communications solution.

Factors in Choosing a Compressed Video System—The Human Dimension
Steven G. Sachs, Northern Virginia Community College

Training Effectiveness of Satellite-Based Business Television: Case Studies
Jill Johnson, GTE Spacenet Corp.

CBI/CAI Success Factors
12:45pm-2:00pm
Convention Center
Sponsors: ITED, DISC, FETA
Pierce demonstrates the successful application of CBI to the training needs of a large workforce. Ley et al will describe the requirements for a mobile computer laboratory.

Maximizing Displays in Highly Technical CBI
Mary Ann Pierce, JWK International
JoAnn Crystal, JWK International

CAI Mobile Laboratory for Workplace Literacy
Kathryn Ley, Grambling State University
Felicia Barns, GSU
Ben Lowery, Grambling State University

The Adult Learner: Designing Instruction and Developing the Learning Environment
2:15pm-3:30pm
Convention Center
Sponsors: ITED, Curriculum Committee
Chair: Robin Taylor, New Century Education Corporation

Systemic Training Design: Instructional Design for the Adult Learner
Rita C. Richey, Wayne State University

Affective Strategies for Effective Learning
David M. Crossman, University of Pittsburgh
Sandra G. Behrens, Consultant

Building Human Capital in the US and Japan
2:15pm-3:30pm
Convention Center
Sponsors: ITED, INTL
Training represents a significant dimension of human capital investment. In this session, Chobot will review capital budgeting and accounting techniques and estimation of training investment risk/return. Taguchi and Keller will explore how Japanese training is different from US training and the extent to which the systems approach is being employed by Japanese companies.

Training as Human Capital Investment
Richard B. Chobot, Independent Consultant

Training in Japan: The Use of the Systems Approach
Mina Taguchi, Florida State University
John M. Keller, Florida State University

Thursday, February 6, 1992

Instructional Strategies
12:45pm-2:00pm
Convention Center
Sponsors: ITED, DID, FETA
Both presentations in this session will address the need to provide opportunities for application of skills and knowledge within instructional programs, with the focus on analysis and problem solving.

Research and Development for Case-Based Instruction
Allison Rosett, San Diego State University
Tricia Emerson, Anderson Consulting

Cognitive Apprenticeships in Weather Forecasting: Case Studies in Instructional Design
Brent Wilson, University of Colorado at Denver

Friday, February 7, 1992

Corporate Training Evaluation Symposium
9:30am-10:45am
Convention Center
Sponsor: ITED
Gary R. Morrison, Memphis State University
Steve Ross, Memphis State University
Ava Johnsey, Dow U.S.A.
Sharon, A. Shrock, Southern Illinois University
William Coscarelli, Southern Illinois University
W. Rob Foshay, The Roach Organization

Continued from page 6.

As the need for a better trained work force creates a requirement for more training, companies are taking a critical look at the effectiveness of their training programs. The papers in this symposium will describe how two corporations have implemented evaluation programs that directly affect the quality of their work forces.

Saturday, February 8, 1992

Real World Challenges
9:45am-11:00am
Convention Center
Sponsor: ITED
The first presentation shares the results of a 2-year study of the literature on ethics training and communication and presents an outline for instruction in ethics. The second presentation will discuss how the IT program at Georgia State University bridges the gap between academics and the workplace.

Ethics in Communications: Research Implications for the Development of Curriculum
Richard Lamberski, Indiana University of PA
Laurie A. Zoglmann, Indiana University of PA

Bringing the "Real World" into an Instructional Technology Program
Jordana R. Huchital, Georgia State University
Vincent Eugenio, AT&T
Francis Atkinson, Georgia State University

How Do We Know What Learners Need to Know
11:15am-12:30pm
Convention Center
Sponsors: ITED, DID
The first presentation discusses the use of the Delphi Process to identify competencies and compares the cost affectiveness of the Delphi approach to conventional occupations analysis. The second presents a model for in-depth questioning to facilitate the design process.

Using a Delphi Approach to Training Needs Assessment
Alex Romiszowski, Syracuse University
Pete McDonald, Syracuse University

Why Not Just Ask: A Model for Questioning Techniques
Elizabeth L. Israel, Arizona State University
Wilhelmenia Savenye, Ph.D., Arizona State University

Process Improvement
12:45pm-2:00pm
Convention Center
Sponsors: ITED, DID
Davies propose the use of Process Mapping as a powerful tool for improving performances in the workplace and enhancing the effectiveness of instruction. Monk et al demystify Merrill's theory and conduct a "visual walk-through" of the ID Expert System

Process Mapping—A Path to a Vision
Ivor K. Davies, Indiana University

Merrill's Instructional Transaction Theory Made Easy
Jinell Monk, Utah State University
Wayne Carroll, Utah State University
Steven Hancock, Utah State University

Sunday, February 9, 1992

Making Media Decisions
8:00am-9:15am
Ramada Renaissance
Sponsor: ITED
The first presentation offers a "Media Planning Framework" that integrates needs assessment with media utilization. The second presents a process fo selecting media and illustrates it application to a variety of scenarios.

Needs and Media: A Planning Framework
Stephen Rodriquez, San Jose State University
Robert Stephens, San Jose State Univ.

Selecting Media for Effective Instruction and Presentations
James D. Russell, Purdue University
Carl Stafford, Purdue University

ITED KAFFEE KLATSCH: MEMBERSHIP MEETING

9:00am-10:45am
Ramada Renaissance, Room 8
Sponsor: ITED

Forum on Instructional Design Fundamentals: A Review and Reconsideration
11:00am-12:15pm
Ramada Renaissance
Sponsors: ITED, DID
Barbara Seels, University of Pittsburgh
Walt Wagner, Florida State University
Walt Dick, Florida State University
Kent Gustafson, University of Georgia
Zita Glasgow, ID Consultant
Rita Richey, Wayne State University

Discussion about the need to develop new tools and models. Instructional design has not been based on a reconsideration of the fundamentals. Three discussants will review the past, present and future of these fundamentals and offer implications for curriculum during this session. Reactors will present the viewpoints of theory and practice.

Quote Of The Month

The endless cycle of idea and action,

Endless invention, endless experiment,

Brings knowledge of motion, but not of stillness...

Where is the Life we have lost in living?

Where is the wisdom we have lost in knowledge?

Where is the knowledge we have lost in information?

T. S. Eliot, Choruses in *The Rock*

ITED Membership Applications Invited From AECT Members And Nonmembers

Industrial Training and Education Division (ITED)

ITED is involved with designing, planning, and managing training programs, works to improve communications to ensure the maximum utilization of education techniques and media that give demonstrable evidences of effectiveness.

Send this form (or a copy) to

Association for Educational Communications and Technology
1025 Vermont Avenue NW # 820
Washington, DC 20005

Correct your name and address if different from the label below.

Please check the appropriate boxes:

☐ I am already an AECT Member and wish to join ITED. Division fee: $10.00.

☐ I wish to join both AECT and ITED. Membership fee: $65.00.*

☐ My check for $_____, payable to AECT, is enclosed.

☐ Charge dues in the amount of $_____ to my credit card.
Circle: MasterCard VISA Diners Club Carte Blanche

Account #: _____ Exp. Date: _____

Signature: _____

* Includes free ITED membership and subscription to *TechTrends*.

ITED NEWSLETTER
Dr. Andrew R. J. Yeaman, Editor
Yeaman & Associates
601 West Eleventh Avenue #1103
Denver, CO 80204-3555

ITED NEWSLETTER

March 1992 *Industrial Training and Education Division, Association for Educational Communications and Technology*

New Officers Need to be Elected to the ITED Board in '92

by Robin Taylor

The ITED elections of officers are held in alternate years and 1992 is an election year! These are the open positions and chief responsibilities:

President Elect—convention planning, Division Council delegate.

Secretary—minutes, bylaws, convention planning correspondence, Division Council delegate.

Director at Large—evaluate proposals, chair convention sessions, coordinate awards, Division Council alternate.

Publications Editor—produce newsletter and other publications.

As one who has been a member of ITED's Executive for many years, I can assure you that the tasks are actually enjoyable and that the interaction with the other members of the Executive is very stimulating.

Consider your fellow ITED members: Who would you like to be in charge of this Division?

When you have identified some potential leaders, please use the form in this newsletter to make your nominations.

Be aware that you must have your nominees' permission to submit their names!

You may, of course, nominate yourself.

After the April 30 closing date I will contact each candidate for a brief vita and position statement.

This information will accompany the ballots sent to ITED members. Fill out the form on page four and send in your nominations right away.

AECT Conference Scheduled for New Orleans, January 13-17, 1993

The next AECT National Convention will be held in New Orleans, January 13-17, 1993. This is early in the year and the Call for Papers has already gone out to AECT members. Over 300 presentations, demonstrations and workshops are expected.

The general announcement and request for presentations also appears in the latest TechTrends. Note the deadline for submissions is March 27, 1992.

Presenters are asked to provide four keywords classifying their presentations. Here are some descriptive words appropriate to sessions sponsored by ITED:

- adult learning
- lifelong learning
- Workforce 2000
- corporate training/education
- government training/education
- military training/education
- health training/education
- information systems
- business-school cooperation
- industry-school cooperation
- project management
- case studies
- embedded training
- just-in-time training
- design tools
- total quality management

If these topics or similar keywords describe your presentation then ITED should be selected as a sponsor.

Also, the AECT conference offers the opportunity to present a half day or full day workshop.

Job Aid for ITED Newsletter Writers

The purpose of the *ITED Newsletter* is to maintain communication about professional matters within the Industrial Training and Education Division.

Send articles and announcements to:
Dr. Andrew R. J. Yeaman
Yeaman & Associates
601 West Eleventh Avenue #1103
Denver, CO 80204-3555

Telephone: (303) 534-5749

Fall issue deadline: October 16

Submit both hard copy and text file on computer disk. Call first to arrange transmission by fax or email.

In this issue

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18 New Resolutions Sent to AECT Board

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ITED Members Asked for Ideas and New Goals

General Assembly Resolves and Recommends Issues to AECT Board for Action and to Consider

Members of the ITED Board of Directors every year represent ITED's interests at the AECT General Assembly and in the Division Council.

This year Robin Taylor, ITED Past President, chaired the Division Council. Carl Stafford, DISC President and an ITED member, was the Secretary. Previously the Division Council was chaired by ITED President Elect Joanne Willard. The Chair and Secretary of the Division Council also serve on the Assembly Steering Committee.

The Assembly is central to AECT governance. By working with Divisions, State Affiliates, Affiliated Organizations and Past Presidents Councils, the Assembly submits resolutions and recommendations to the AECT Board of Directors.

Resolutions must be acted on by the AECT Board and usually pertain to Association policies or procedures.

Recommendations are guidelines and comments which enable the AECT membership to convey suggestions to the Board.

At the Washington, DC convention the Division Council drafted and approved 18 resolutions and 5 recommendations. Much thought and debate went into the resolutions. The concerns of ITED members are well represented in these top priority items.

Vision 2000: the Future of AECT Divisions
The Division Council resolves that every Division ensure that it is represented at the Summer Leadership Conference to participate in shaping the future of the Association. We request that the Board present sufficient information on the strategic plan at the Leadership Conference to enable Division representatives to provide input. Also resolve that a Division Task Force be formed, chaired by the Division representatives to the Board, with representation from all Divisions, with responsibility for disseminating planning information throughout the Divisions and channeling information to the Board regarding strategic plans.

The Task Force will provide a forum for:
a. describing the needs of the Divisions
b. identifying and addressing "job-alike" issues
c. evaluating the planning process
d. improving the planning process
e. maintaining and/or increasing Division involvement in governance

(This resolution was so well received at the Final General Assembly, that it was replaced by a much broader resolution calling for the establishment of a Task Force for each Council, along with membership specifications and a 1992 timeline.)

Internal Relations: Report Results of Task Forces to Divisions
Resolve that, when a task force is formed to resolve/investigate resolutions, regular reports of task force proceedings are to be disseminated to Assembly members. Summaries of all task force actions and discussions are to be reported within 30 days of actions taken and, minimally, at least 60 days before the annual convention.

Fiscal Relationship Between AECT and the Divisions
Resolve that the Board appoint a task force with representation from Division interests to review the fiscal relationships between the Association and the Divisions, including the manner in which the fiscal matters of Divisions are controlled by the National Office, fiscal control within the Divisions, and the timeliness and adequacy of financial reports.

Corporate Memberships
Resolve that the Board reconsider resolutions passed by the Assembly in previous years regarding the establishment of a membership category for corporate practitioners. Further resolve that ITED and FETA be consulted in determining the rules governing a corporate membership category and to assist AECT staff in resolving any administrative difficulties it may present. The existing corporate membership category targets vendors only and is no help in attracting corporate practitioners as AECT members or corporate support for AECT.

(FETA, the Federal Educational Technology Association, and ITED have cooperated on a number of other ventures during the past few years.)

Communications
Resolve that the AECT Board establish a task force/committee to implement an immediate feasibility study which blends existing electronic networks (Bitnet, Internet and the Learning Link family of services) and systems to provide access to an AECT Electronic Network to all members by September 1, 1992. The task force should include

Assembly Council Committees:
Technical committee
Applications and use committee
Access and fees committee
Field study, including 40 addresses:
AECT Board and AECT staff
Division Council representatives
Affiliated Organizations Council representatives
State Affiliates Council representatives
Applications (Field Study):
Long-range planning committee
Leadership planning
Newsletters
Needs analysis

ITED Presidents and Membership Meet for Breakfast

by Andrew Yeaman

The Industrial Training and Education Division Annual Meeting was held at the Ramada Renaissance Techworld Hotel on Sunday, February 9, 1992.

President Len Arychuk called the meeting to order at 9:40 am and introduced the ITED executives present:

President Elect—Joanne Willard

Newsletter Editor and Acting Secretary—Andrew Yeaman

Members present at the start of the meeting were introduced: Jo Leventhal, Lyle Grooters, Madeleine Tainton, Mary Lou Shippe, Sue Middendorf, Tish Cavaleri, Sara Shick, Elizabeth Israel, Dorothy Fuller and Carolyn Hening.

Len announced the need for nominations for the offices of President Elect, Secretary, Newsletter Editor and two Directors At Large.

Len read the minutes of the previous meeting, held February 12, 1991. Sue Middendorf moved to accept these minutes. Jim Stonge seconded. Passed unanimously.

Len gave the President's Report and showed the ITED officers' handbooks developed by Past President Robin Taylor.

Joanne gathered suggestions for criteria for the 1993 ITED internship. The award procedures will be more formal than in 1991. Applications in the form of a 500 word essay are due June 15, 1992. Sue Middendorf and Carolyn Hening volunteered to help read and rate the entries. Sara Shick volunteered to put the internship announcement in the FETA Newsletter.

Andrew reported that the next ITED Newsletter will be out in time to announce to readers that March 27 is the postmark date for proposals for the January, 1993 New Orleans conference. The preconference issue is planned for publication in December.

Len is working on obtaining buttons and ribbons for ITED members attending the New Orleans 1993 conferenence.

A report on the status of the ITED exemplary training award was unavailable because Chip Ingram, Director At Large, could not be present.

Jim Stonge, Director At Large, has negotiated a corporate membership category with the AECT national office. Although there is no price break, the savings for corporations is in cutting a single check for the dues of five members. They will receive their mailings at their business address.

Jim further reported that AECT still needs to build awareness of business and industry as part of the Association's membership.

Jim will be participating in AECT strategic planning at the summer Leadership Development Conference in Louisville, Kentucky. He encourages ITED members to talk to AECT officers and give them input as implementation of plans for the future has to come from the membership. Jim said that if you want to make a difference you have to act now.

Sara Shick and Tish Cavaleri led a discussion of a proposal for FETA and ITED to cosponsor a high quality practitioners' track and workshop at the next conference. Franz Frederick said that putting this in place would bring about a gain in visibility. Len asked for people to contact him with workshop ideas and to volunteer to coordinate sessions.

Len asked that donations in memory of his colleague Frances Beguli be sent to the British Columbia Institute of Technology, 3700 Willingdon Ave., Burnaby, B.C. V5G 3H2, Canada. The donations will help fund the education of Frances Beguli's children.

Len thanked all the ITED presenters for their contributions to the conference.

Nominations for ITED officers are needed for an election to be held this year.

Joanne made a motion, seconded by Andrew, and the meeting adjourned.

Pacific Bell Wins the ITED 1992 Award for Exemplary Training

This year the ITED Training Awards Program gave the Exemplary Award to Pacific Bell of San Ramone, California. The winning entry is *The Course Developer Competencies Course/Curriculum*

The manager for the project is Gary Fraundorfer. The developer is Mary Biggs, who can be contacted at (510) 823-5562.

The Course Developer Competencies Course/Curriculum is a 10 day course delivered by print, videotape, CBT and various mixed media. It was produced entirely inhouse.

Previous awards have gone to military, financial, computer and educational organizations.

Entries for the next competition (fall deadline) should be addressed to
Dr. Albert L. Ingram
Instructional & Training Technology
Governors State University
University Park, IL 60466
Telephone inquiries to Dr. Ingram at (708) 534-5000.

Nominations for the ITED Executive Closing date: April 30

(See elections article on page one.)

President Elect _____ Phone (____) _____

Brief rationale _____

_____

Secretary _____ Phone (____) _____

Brief rationale _____

_____

Director at Large _____ Phone (____) _____

Brief rationale _____

_____

Publications Editor _____ Phone (____) _____

Brief rationale _____

_____

Nominated by _____ Phone (____) _____

Visions 2000 Ideas and Concerns

(See strategic planning article and questions on page five.)

_____

_____

_____

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_____

Mail this entire page (or a copy) to

Dr. Robin Taylor
ITED Past President
12 Briarwood Court
Princeton, NJ 08540

ITED Members Requested to Assist in the Strategic Plan for AECT's Vision 2000

by Robin Taylor

AECT is going through the complex task of strategic planning. This time the activity is not prompted by financial exigencies but by the opportunities that have opened up to the Association as result of our imminent de-affiliation from ICIA and InfoComm.

As a result of the Vision 2000 resolution that arose from the Final General Assembly meeting in Washington, DC, it is likely that a task force will elicit input from every Division to AECT's strategic planning process. See the front page of the last ITED Newsletter and the news article on page two of this ITED Newsletter.

So that your Executive can be ready to participate in this task force, we are seeking your ideas now. Please use the response form on page four of this ITED Newsletter. Think about your experiences over time with AECT and ITED and jot down some notes in answer to these questions:

What does AECT and ITED mean to you?

What key roles does AECT and ITED play in your professional life?

What AECT and ITED activities do you find indispensable?

What functions would you rather not have?

What professional services are missing that could be provided by AECT and ITED?

With what type of organization does it make the most sense for AECT and ITED to be affiliated?

After you have thought about these questions, and any similar questions that occur to you, write your concerns on the response form.

Mail the whole of page four to me, Robin Taylor, ITED Past President, and I will collate the comments into a single ITED document. If you have a lot of ideas send me a letter.

Barbara Bichelmeyer Wins $500 Prize from ECT Foundation for Qualitative Research

The ECT Foundation gave the first Special Research Award for Qualitative Investigation to Dr. Barbara A. Bichelmeyer at the Washington, DC conference. The $500 award was sponsored by the Research and Theory Division. Dr. Landra L. Rezabek of Florida State University chaired the committee reviewing the entries.

The winning report was a case study of *The Pilot Implementation of an Educational Resource Network.* This research was conducted as part of Dr. Bichelmeyer's work in the Ph.D. program in Educational Communications and Technology at the University of Kansas. The chair of her doctoral committee was Dr. Ronald Aust.

Dr. Bichelmeyer is currently employed by the Sprint corporation and can be reached at (816) 854-3926.

Another $500 prize to accompany the Special Research Award for Qualitative Investigation is offered for 1993. The deadline for submissions will be in the fall of this year. For further details contact AECT, 1025 Vermont Avenue, N.W. #820, Washington, DC 20036 or call (202) 347-7834.

Notes From The Editor's Electronic Workstation

- It was inspiring to hear and see so much activity in our field at the annual conference—the eighth one I attended. Also, it was an interesting experience to represent ITED in the General Assembly and the Division Council.
- I enjoyed professional dialogs with friends, old and new. In particular I have been wondering if allegations of computer anxiety are a way of blaming the victim—like the racism described by William Ryan in his 1971 book *Blaming the Victim.* The circumstances cannot be repaired easily so it is tempting to accept that the people affected are deficient. Despite labelling the *problem* as *attitude* nothing real can be resolved because the victims are innocent.
- It seems the ethical choice for our field is not in increasing the general education of future computer operators and consumers but in making computer products easier to learn how to use.

Quote Of The Month

Mythinformation

The almost religious conviction that a widespread adoption of computers and communications systems along with easy access to electronic information will automatically produce a better world for human living.

Langdon Winner (1986, p. 105) *The Whale and the Reactor: A Search for Limits in an Age of High Technology*

ITED NEWSLETTER

January 1993 *Industrial Training and Education Division, Association for Educational Communications and Technology*

New Orleans AECT Conference Features Two Day TQM Track

The AECT National Convention is planned for New Orleans, January 13-17, 1993. Over 300 presentations, demonstrations and workshops will take place. Featured among them is a TQM track sponsored by FETA and ITED.

The two day track on Total Quality Management was organized by Joanne Willard, ITED President, and Tish Cavaleri, FETA President. It is scheduled for Wednesday, January 13 and Thursday, January 14 at the New Orleans Convention Center.

The speakers will discuss the influence of total quality concepts on education and training in both the public and private sectors, and the value in applying total quality principles in these two arenas.

Discussions will include descriptions of total quality strategies in public education and private corporations, the added value of quality processes in instructional design, and cooperative efforts among corporate and academic institutions. The track will provide participants with insights on efforts currently underway to include TQM processes in educational and training programs. It will also explain methods participants can apply to instructional design that incorporate total quality principles.

Presidential Session

Joanne Willard and Tish Cavaleri will also co-chair a TQM session on Thursday afternoon. This is a Presidential Session focussing on Gateways to Leadership. William Higgenhorn, James Robertson and Arthur Paton of Motorola University will share information on several large-scale collaborative efforts between business and educational institutions to promote Total Quality Management. *See the TQM Track on page 6*

Failure Leads To Success With Environmental Analysis

by Marty Tessmer

Any instruction that does not bring about the desired learning in all of its intended audience is to some degree a failure. The main reason for failure is instruction not fitting the world in which it is to be used. This emerged from analyzing my own an others' failures. Instruction can be theoretically sound but practically inappropriate.

From discussing these considerations of instructional failure with Duncan Harris came our concept of environmental analysis. I have seen instruction fail because:

- It did not fit the users' time schedules.
- It could not be used in home, office or transportation learning environments.
- Instructors were not trained in strategy or equipment use.
- The production staff could not efficiently produce the instruction the way it was designed.
- The learning spaces were too small or large or cramped or hot or muffled.
- No one planned how to copy and deliver the product after it was completed.
- Users' patterns of instructional use, sporadic versus continuous, were ignored.

Continues inside on page 5

Job Aid for ITED Newsletter Writers

The purpose of the *ITED Newsletter* is to maintain communication about professional matters within the Industrial Training and Education Division.

Send articles and announcements to:
Dr. Andrew R. J. Yeaman
Yeaman & Associates
601 West Eleventh Avenue #1103
Denver, CO 80204-3555

Telephone: (303) 534-5749

Spring issue deadline: February 15

Submit both hard copy and text file on a 3.5 inch computer disk. Call first to arrange transmission by fax or e-mail.

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ITED Sponsors Sessions At The 1993 AECT Conference

The Total Quality Management Track Appears On Page 6

Wednesday, January 13

9:30 am-10:45 am, Room 55

Evaluation of Corporate Training Programs: Two Approaches

Chair: Andrew R.J. Yeaman, Yeaman & Associates

Faculty: Gary R. Morrison, Memphis State University

Steven M. Ross, Memphis State University

Bill Coscarelli, Southern Illinois University

Sharon Shrock, Southern Illinois University

Two different approaches to the evaluation of training programs will be presented in this symposium. The first approach will focus on effective testing strategies for a variety of conditions. The second will present a multiple-view training evaluation program. Case studies will illustrate the approaches.

9:30 am-10:45 am, Room 61

The Changing Curriculum of Instructional Technology

Chair: David M. Crossman, University of Pittsburgh

Faculty: John Belland, Ohio State University

Phil Doughty, Syracuse University

Ed Newren, Miami University

Robin Taylor, Past-President, ITED

As the demand for instructional designers and technologists continues to grow, academic departments must continually monitor and modify their programs to meet current needs. This panel, comprised of members of the AECT Curriculum Committee, will discuss their vision for curricular changes within graduate instructional design and technology programs which supply the professionals entering our field.

12:45 pm-2:00 pm, Room 55

Using Performance Support Systems for Just-in-Time Workforce Literacy

Chair: Joanne Willard, Creative Training Concepts

Faculty: Arleen Amato, ClearComm Corporation

Peggy Stack, ClearComm Corporation

As the pool of employees and potential employees with basic competencies shrinks, the list of basic competencies needed in the workplace grows. Through simulation, group activities and dialogue, attendees will explore the possibilities of upgrading and expanding employees' job-related basic skills through the use of performance support systems and other features of just-in-time training.

2:15 pm-3:30 pm, Room 55

Innovative Training Interventions

Chair: Robin Taylor, Past-President, ITED

1 Conflict Management Training: A Selection Intervention Model

Faculty: Amos C. Patterson, University of Toledo

David Torrence, National Elevator Industry Education Program

2 Embedded Training: A Recent Technological Approach to Worker Performance Training

Faculty: Mary E. Williams, University of Oklahoma

This session will address two recent intervention methods. The first is a selection intervention model for choosing strategies to manage conflict in training situations with adult learners. The second is embedded training, which offers unique challenges for the design of worker performance training.

Thursday, January 14

11:00 am-12:15 pm, Room 57

Innovations in Corporate Training Development

Chair: Peggy Stack, ClearComm Corporation

1 Empowering Your Customer to Perform Task Analysis

Faculty: Jean Ann Derco, Martin Marietta Energy Systems

Robert Schriver, Martin Marietta Energy Systems

Barbara E. Tischler, Martin Marietta Energy Systems

2 Anatomy of an Innovation: Implementation of a Corporate Resource Center

Faculty: Jon C. Abeles, NYNEX/New York Telephone Company

Daryl Hall, NYNEX/New York Telephone Company

This session will introduce two innovations that make the training developer's job both easier and more effective. The first presentation will describe how to empower your customer to perform task analysis and get results. The second presentation will relate how numerous obstacles were overcome to provide corporate access to learning materials for essential training requirements and to enhance competitive posture.

11:00 am-12:15 pm, Room 61

Surviving the Media Maze: What Mom Forgot to Tell You!

Faculty: Richard Cornell, University of Central Florida

Eric Alvarez, Travel Agent

Jeff Armstrong, Burdine's of Florida

Catriano Barbato, UCF Institute for Simulation & Training

Michael Canerossi, Assessment Specialist

Liela Kamunen, University of Central Florida

Alisa Kindall, Univ. of Central Florida

Chuck Saar, Univ. of Central Florida

Come experience the best of presentation booboos, done with skill, music, rollicking good fun, imagination and - with luck - a good finale which will leave you breathless ... maybe. Look for special "cameo" appearances by your favorite "media stars."

Continues on page 3

Continued from page 2

Friday, January 15

8:00 am-11:45 am, Sheraton St. Charles A

Workshop 13

How to Create Effective CBI

Faculty: David Twitchell, United States Air Force

J. Steven Soulier, Utah State University

A number of significant questions will be addressed in this workshop: Over the last decade, what have we learned about how to design, develop and produce CBI with instructional power? What are the disadvantages/ advantages of CBI? Why should I use CBI? When is CBI appropriate and effective? How should CBI be designed today to be most effective? instructionally sound and creative CBI?

9:30 am-10:45 am, Room 52

Designing Hypermedia Systems for Training in Business and Industry

Chair: Robert Spears, Simms Industries, Inc.

1 Design Elements for a Hypermedia-Based Training Facility

Faculty: Francis A. Harvey, Lehigh University

Gary E. Sadavage, Lehigh University

2 The Synergistic Combination of Hypermedia and Knowledge-Based Systems Technologies

Faculty: Francis A. Harvey, Lehigh University

John L. Wilson, Lehigh University

In two related reports, participants will learn about the design and development of effective facilities for the development and delivery of hypermedia-based training. Then, they will see how the combination of knowledge-based systems and hypermedia aids training and technology transfer.

12:45 pm-2:00 pm, Room 52

High-Technology Job Skills: International Approaches to Providing Relevant, Transferable Training

Chair: Mary E. Williams, University of Oklahoma

1 A Hypermedia Learning Environment for I.T. Skills

Faculty: Jim Devine, National Distance Education Centre, Dublin City University

2 Instructional Design for High Technology Training Applications

Faculty: Stuart H. Weinstein, SWL, Inc.

Charles B. Murray III, Signet Bank

This session will address two approaches to training for high-technology job skills. The first case study will showcase the development of a multi-lingual multimedia course for personnel in small- and medium-sized companies in the European Community. The second case study will demonstrate the cost effective coupling of multimedia courseware with actual equipment in the job setting.

Saturday, January 16

8:00 am-9:15 am, Room 57

Training Development Models: Hypermedia Design and Program Evaluation

Chair: Amos C. Patterson, University of Toledo

1 The Relative Cost- and Time-Effectiveness of Hypermedia Training

Faculty: Devon L. Frey, Lehigh University

Francis A. Harvey, Lehigh University

Jeannette B. Nepon, Lehigh University

2 An Education and Training Program Model for Evaluation and Planning

Faculty: Mahassen Ahmad, Texas Dept of Human Services, Nutrition Education, & Training

Deborah Simpson, Texas Dept of Human Services, Nutrition Education, & Training

Training developers are always looking for "better" models to apply in their settings. Here are two: a process model for the cost-effective development of adult integrated hypermedia training, and an education and training program model for evaluation and planning.

8:00 am-9:15 am, Room 62

Electronic Performance Support Systems

1 Performance Support Systems in an Enhanced Learning Environment: A Test Concept

2 Electronic Performance Support Systems: Point-Counter-Point

3 Performance Support Systems in a Virtual Office Environment: A Test Concept

9:30 am-10:45 am

From Visual Design to Motivation

1 The Effects of Combinations of Text and Background Colors on Scanning Speed and Accuracy of Target Letters on Words Displayed on CRT

2 The Application of Motivational Principles to Visual Design

3 The Effects of Individualized and Cooperative Learning Approaches on Motivation

9:30 am-10:45 am, Room 54

Multimedia and Learning Styles

1 Learning Styles and Multimedia Design Principles

Faculty: Rengen Li, Georgia Quick Start

2 Students' Personality Types and Their Influence on Instructional Technology Courses

3 Beyond the Novelty Effect: Designing Motivating Multimedia Instruction

11:00 am-12:15 pm, Room 62

Adoption of Innovative Technologies: Recent National Surveys

Chair: Jean Ann Derco, Martin Marietta Energy Systems

1 Expert System Use and Development: A National Survey

Faculty: William D. Milheim, Penn State - Great Valley

2 1992 Survey of Compressed Video Applications: Higher Education, K-12, and the Private Sector

Faculty: Ellen O. Edwin, University of Wyoming

James R. Edwin, University of Wyoming

Barbara Hakes, Univ.of Wyoming

Continues on page 4

Continued from page 3

Exciting new technologies are being developed, refined, and enhanced at a breath-taking pace. But is anyone using them? This session will provide the answer for two of the newer technologies - expert systems and compressed video.

12:45 pm-2:00 pm, Room 64
The Advanced Qualification Program (AQP) - A Turning Point in Aviation Training
Faculty: Lou Bender, Applied Science Associates, Inc.
Ruth Ann Pollock, Federal Aviation Administration

This presentation will describe the Federal Aviation Administration's (FAA) revolutionary alternative method of qualifying, certifying, and training flight crewmembers, attendants, and other operations personnel. AQP training is true proficiency-based training, rather than time-based training. The development and implementation process for the AQP will be presented via videotape and guided discussion.

12:45 pm-2:00 pm, Room 53
Using the Computer in the Training and Education Classroom
Chair: Albert L. Ingram, Governors State University
Faculty: James D. Russell, Purdue University
Carl W. Stafford, Purdue University
This presentation will introduce ways of using the computer in training and education classrooms, allowing trainers and teachers to improve and expand their presentation skills so as to improve human performance in their organizations.

Sunday, January 17
9:30 am-10:45 am, Sheraton Senate
Women in Development Communication: A Presentation of Strategies for Development
Faculty: Annie Foster, USAID
Mary C. Muller, CCCI
Mary Lou Shippe, Loral WDL

This presentation will address issues of socio-economic growth and social change for women in Third World countries through the use of various strategies in educational communications. Special communications projects designed and evaluated by international agencies will be discussed by the Third World women who are carrying out these projects throughout the world.

9:30 am-10:45 am, Sheraton St. Charles A
Making Platform-Dependent CBT/IVD Transportable
Chair: Stuart H. Weinstein, SWL, Inc.
Faculty: Robert Spears, Simms Industries, Inc.

This presentation will describe a system developed to increase accessibility by converting hardware-dependent CBT/IVD into courseware that can be run in an MS-DOS environment, in a UNIX environment, or in a Macintosh environment.

11:00 am-12:15 pm, Sheraton St. Charles B
Do Train the Trainer Seminars Work? A Qualitative Evaluation Example
Chair: Robin Taylor, Past-President, ITED
Faculty: David R. Torrence, National Elevator Industry Educational Program

Assessing trainer effectiveness is an activity that raises anxiety levels. In this session, the effects of train-the-trainer seminars will be examined through the qualitative evaluation of trainer competencies.

Notes From The Editor's Electronic Workstation

• **The Annual ITED Kaffee Klatsch,** an event eagerly anticipated by ITED members, is on:

Sunday, January 17
8:00-9:30 am
Sheraton Hotel
Esterwood Room

This year's earlier time was selected to avoid conflicts with other ITED sponsored sessions.
See you there!

• If you are wondering about the relationship of training to profits and effectiveness, consider that the total cost of employee turnover may be as high as 1.5 times an employee's annual salary. See The Service Driven Service Company by Scheslinger & Heskett in *Harvard Business Review*, Sept.-Oct., 1991, pp. 71-81.

This analysis shows that training people in their jobs and fitting their work environment to them, such as improving the usability of their computer system, provides direct financial benefits, decreases in turnover and important gains in customer satisfaction.

Quote Of The Month

R O I: Return On Investment

"When will we learn to demonstrate to our employers and clients that performance technologists and other training professionals are assets that contribute to profitability, not liabilities that merely increase operating expenses?"

Robin Taylor

Analyzing The Setting Results In Improved Instructional Design

Continued from page 1

• The content lifespan was not anticipated in media planning.

• Users' equipment literacy was bypassed.

• Staff support services were not considered until production began, if at all.

• Administrative support for instructional strategies and media was taken as a given.

• Season and climate subverted student attendance and technical delivery.

Physical and Social Aspects
These environmental problems occurred because of physical factors such as temperature, lighting, time, equipment complexity, and site distribution. They also occurred due to abstract factors such as organizational climate, support service skill level, student usage patterns.

The learning environment must be considered (classroom, office, car, home) but also the surrounding support environment (production services, site locations, clerical help, organizational attitude). All these may contribute to the success or failure of the most well-designed materials.

There was no existing instructional design model or task that seriously described how to analyze this environment, much less how to use the resultant information. This lack motivated Duncan Harris and I to share our insights and the solutions we had created.

We recently presented these in our book: *Analysing the Instructional Setting: Environmental Analysis.*

An International Collaboration
I met Professor Duncan Harris, my co-author, when he was visiting the University of Colorado-Denver on sabbatical in 1990. Duncan has worked for many years on evaluating educational technology programs and products in Great Britain. He is currently on the faculty of Brunel, the University of West London.

"No existing instructional design model or task seriously described how to analyze this environment."

During one of our first conversations together, Duncan remarked how so many of the problems with educational technology that he had seen implemented had to do with a failure to attend to the practical details necessary to make the instruction succeed.

After trading several stories to that point, we agreed that it would help if someone could explain how designers could attend to these details in the front-end analysis of their instruction.

We then wrote and published several articles in Great Britain and the US on the subject. Next we decided to develop our ideas more completely and express them in the form of a book.

Our aim in writing the book was to assist designers in analyzing instructional environments.

How to Design for Success
Environmental analysis is an analysis of the context of instruction, including the psychosocial setting in which it will be used. The underlying assumption behind the book is that all learning takes place in an influential web of physical, organizational, mental and attitudinal factors.

Failure to consider these factors can mean that instruction will fail. The design of instructional strategies, media and evaluation must contain environmental information at their outset.

The purpose of environmental analysis is to identify factors that could influence the success of the instruction. These factors can affect how the instruction is used, how well learners attend to it, how well it is accepted by its users, and how well it can be produced, copied and disseminated.

The environmental analysis is part of the front-end analysis of instructional design, occurring after you assess training needs but before instructional strategies or media are finalized.
Continues on page 6

Four Major Factors About Instruction That Should Be Considered In Design

The physical aspects of the learning environment.

The physical aspects of the support environment.

The usage aspects of the learning environment.

The usage aspects of the support environment.

Consider Applying The Environmental Approach

Continued from page 5

The book outlines specific items to consider within each of four factors. It also describes data gathering methods such as site observation, focus groups, models, photographs and videos, and surveys.

These are the major types of factors to consider:

- The physical aspects of the learning environment.
- The physical aspects of the support environment.
- The usage aspects of the learning environment.
- The usage aspects of the support environment.

Our book also furnishes advice on how to budget environmental analysis time and effort to the size and type of project you have.

"Environmental analysis is an analysis of the context of instruction, including the psychosocial setting."

Writing the Environmental Picture
The output of an environmental analysis may be a verbally graphic depiction of the instructional situations called an environmental picture. This picture is not some catalog or listing of isolated facts obtained from the environmental analysis. Rather it is a holistic scenario or story about the use of the instruction in one or more of its contexts of use.

The picture is used to help the design team visualize the instructional setting and react to it.

In a sense it is a verbal prototype of the environment, a reality check that enables the design team to react to the picture they have painted in their design efforts.

For example, the picture of a workshop project would describe participants, leader activities, physical setting, and patterns of use, space, seating, and location.

"All learning takes place in an influential web of physical, organizational, mental and attitudinal factors."

Environmental Factors are Vital to Instructional Success
There is a saying, "Better to be significantly wrong than trivially right." In my instructional projects that were failures, as all are to some degree, I like to think that I was significantly wrong because they brought to my attention environmental factors helpful to future success.

This book may also help you design for success by investigating the environment.

Analysing the Instructional Setting: Environmental Analysis

written by Martin Tessmer and Duncan Harris.

The book is published by Kogan Page in London and Taylor & Francis in Bristol, Pennsylvania.

The address for Taylor & Francis:
1900 Frost Road, Bristol, PA 19007.

Telephone: (215) 785-5800.

Total Quality Management Program

Cosponsored by ITED and FETA

Second Presidential Session

Thursday, 12:45-2:00 p.m., Room 54
Lessons on Quality: The TQM University Challenge
Co-chair: Joanne B. Willard, President, ITED
Co-chair: Tish Cavaleri, President, FETA
Presenters: William Wiggenhorn, President, Motorola University
James R. Robertson, Manager, Quality Competency Center, Motorola University
Dr. Arthur E. Paton, Team Leader of Instructional Design, Technology Education Center, Motorola University

TQM Track Sessions

Wednesday, 11:00 a.m.-12:15 p.m., Room 52
Ford Motor Company Program Evaluation: A Total Quality Operating System
Presenters: Allison Trawick, Ford Motor Company
Rick Rothermel, Ford Motor Company

Wednesday, 2:15-3:30 p.m., Room 52
Improving Instructional Systems Design Processes
Presenter: Dr. Albert L. Ingram, Governors State University

Thursday, 8:00-9:15 a.m., Room 52
The Florida School Year 2000 Initiative: An Overview and Status Report
Presenters: Atsusi Hirumi, Florida State University
Edna Holland Mory, Florida State University

Thursday, 11:00 a.m.-12:15 p.m., Room 52
Creating World Class Quality: A Business and Academic Partnership
Presenter: Dr. Arthur E. Paton, Motorola University

Thursday, 12:45-2:00 p.m., Room 52
Quality as a Process
Presenters: Dr. Robert E. Spears, Simms Industries, Inc.
Dr. Ivor K. Davies, Indiana University

A Letter to the Members from the ITED President

by Len Arychuk

This has been a exciting year for me and I would like to share it with you. But first, how are you? Hope that you have had a successful year, good health and good times.

Earlier this year the Tanzanian job felt like it was never going to happen after so many false starts. However, another job, on fairly short notice, came into place, (Kampala, Uganda) and that was supposed to be for two weeks and ended up being for the whole month. There were a lot of things that happened here and businesswise we were successful without going into details.

Did make contact with the late Francis Bagoole family from Jinja, Uganda, met with his older brother, and another guardian of the seven children. Francis was my counterpart in Canada most of the year in 1989 and 1990 and we became good friends. Unfortunately, he passed away last Christmas. For your information, together, with some of my colleagues at AECT from the INTERNATIONAL DIVISION and INDUSTRIAL TRAINING AND EDUCATION DIVISION and the BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY we have set up an educational fund for his children. Monies were given for the first semester expenses to his family.

These funds will be used for school starting in the new year. To those that have contributed I THANK YOU on their behalf. IF you are interested in more information PLEASE CONTRIBUTE by mailing your assistance to the

FRANCIS BAGOOLE CHILDREN'S FUND
c/o Jim Davidson,
5109 Dominion St,
Burnaby, B.C., V5G 1C8, CANADA.

Arrived Oct. 2 in Dar es Salaam, Tanzania on a British Airways flight from London - an eleven hour flight with a quick stopover in Nairobi.

Dar is a big village that became a city and seems to ramble on forever. My stopover was quick but managed to meet some Can's and Americans at the Elite Yacht Club.

On Mon. Oct. 5 left for Kampala Uganda. Our mission here is vocational training enhancement with liaison of the Ministry of Labour. My counterpart is enthusiastic and the others too!!

They are a friendly and keen people with a realization of their need for some help. Hopefully with the World Bank, ILO, WHO, UN and CIOA this can be achieved. Our mission's interest is to assist in development of human resources without duplication. In other words, we want to work as a team with anyone who is interested in vocational training and HROs are apparent. My fellow counterparts both Canadian and Ugandan are team oriented.

Kampala City and countryside is green with fertility. The people generally speaking are friendly, keen and helpful on the street, in the hotel or on the job.

Uganda population is 16.6 million. The Kampala City covers an area of 121 square miles. We are 3900 feet above sea level. Climate is pleasant, averaging 60-80 degrees F.

Amongst many duties in Uganda I did manage a weekend at the Queen Elizabeth National Park, saw many animals, crater lakes and an interesting countryside. This was near the lower west end corner of the Uganda looking from Kampala and Lake Victoria.

At the moment I'm in Dar es Salaam, experiencing many new changes; job, home, food, culture, friends, colleagues and so on. Presently, a member of the Little Theatre group, where at the moment we are getting ready for a Christmas Pantomime that will be running for ten days. My duties include working with props, scene changes and filming.

Besides studying, some time is spent playing different card games and Trivial Pursuit with my new acquaintances. Generally speaking the people are nice, interesting, intelligent and well educated, both on the job and socially.

My apartment is compact with ample room for some entertaining. It is clean, a well equipped kitchen, extra storage and pantry and a walkway type patio, including maid and laundry service. The courtyard has a bar, restaurant, games room, tennis court and swimming pool.

My cooking....already has a reputation, especially the bouillabaisse with crab, prawns, squid, parrot fish and the finest lobster in the world. The vegetables and fruits are good, plentiful and affordable. Meats include chicken, beef, lamb, goat and beef.

The city of Dar es Salaam is about 2 million people, busy and the driving here is as crazy as it is in any large city. There are many hotels, of many different levels of service and price ranges.

The restaurants include; Italian, Greek, French, Indian, Chinese, Turkish, African, etc. All of which are affordable and of great quality!!! Tasty but not too spicy.

Of course, that is disappointing to me. You know how much I like my spices....so I always get the chili chili sauce...my daughter Nadine would like that....

There are a lot of Canadians and Americans here, and we meet occasionally at the yacht club, a elite place facing the

Continues on page 8

Notes from Tanzania

Continued from page 7

Indian Ocean with beautiful sunsets against the islands, yachts, palm trees and beautiful beaches. My next door neighbor is from Montreal.

There are three of us on this team, one from Edmonton, Alberta and two from Vancouver, British Columbia and from BCIT.

The National Institute of Transport is under the Department of Transport, Federal Government of Tanzania. The project is financed through the World Bank. Institute courses vary from short term to three years: Automotive Engineering, Transport Management and Transport Operations.

My work consists of pedagogical Instructor Training, some Transport Operation, Preventive Maintenance, Vehicle Inspection and Automotive Engineering programs.

Two Department Heads and seventeen Instructors will coordinate their activities through my office. Other duties will include the rehabilitation of the workshop.

Hopefully, some of you may be inclined to visit this part of the world. Please write me for information concerning health, visas and travel arrangements. Safaris, land travel, islands (such as Zanzibar are only a couple of hours away by hydrofoil), are amongst things that would interest you.

Read about it before you come, it is most exciting and I am thankful that this opportunity is available.

Conference Message

This year is exciting for most of you as the Conference Programme is challenging and informative. Your ITED Executive has once again exerted themselves in working with other AECT Divisions ensuring that your conference maintains its high level of information transfer TO YOU, no matter whether you are from the Private or Government sectors.

IF at any time you would like to get involved more with ITED, I'm sure that Joanne Willard or Robin Taylor or anyone on the Executive will be more than glad to welcome you aboard.

Please REMEMBER our annual KAFFEE KLATSCH meeting this year and plan to attend.

This information and other conference notices will be at the division display row. Get involved either with us or other divisions. It is a rewarding experience and includes the opportunity to meet other professionals, like you!!!!

Unfortunately I will not be able to attend this year, due to my assignment with a world bank project this year.

I'm sure going to miss my colleagues, but really looking forward to the 1994 Conference in Nashville, TN. Well, podner, get those cowboy boots shined and I'll see you there.....

In closing I would like to wish you, your friends and your family a Merry Festive season.

Be kind and good to each other.....

Sincerely,

Len Arychuk, ITED President

New fax # 011-255-51-41905

Leonard N. Arychuk

N.D. Lea Intern'l

c/o NEDCO

Upanga Road

P.O. Box 567

Dar es Salaam, Tanzania

AFRICA

News from Washington, DC

News

Joanne Willard, ITED President, is chairperson of a special AECT task force. The purpose is to gather ideas from AECT members about how they think their professional organization should be in the year 2000. Communicate your thoughts so they can become part of the strategic planning initiative:

Joanne B. Willard
Creative Training Concepts
77 Park Street, 4th Floor
Montclair, NJ 07042-2962

Telephone: (201) 509-6944
FAX: (201) 509-6943

News

Look for Vice President Albert Gore Jr.'s revived National Research and Education Network applications bill in 1993 as a follow up to the High-Performance Computing Act.

The proposed Information Infrastructure & Technology Act will authorize $90 million the first year, and increase to $370 million in the fifth year, to link K-12 education, higher education, companies, health care and digital libraries through the Internet.

News

President Bill Clinton describes his education platform in this month's *Education Digest*.

"The Clinton Administration will require all employers to invest 1 to 1.5 percent of their payrolls in retraining their own workforce, requiring them to spend it on workers all down the line. In America, 70 percent of job training paid for by private companies goes to the top 10 percent of the employees. But in Europe and Japan, job training goes to people up and down the line, because smart folks know that the front-line workers make the money for you, and you'd better retrain them every year if you want your productivity to continue to rise."

Candidate's Statement for Election to the Office of ITED President

Andrew Yeaman

I write and consult nationally on human-computer interaction and general aspects of information design from my office in Denver, Colorado. I have worked in the field of educational communications and technology for over 20 years.

Position Statement

I joined AECT in 1981 and have been an ITED member since January, 1988 when I started my consulting business. The leaders of this division have impressed me very favorably with their executive style. The Board sets up a do-able agenda and proceeds to get things done. ITED is effective because it has a working board with specific responsibilities.

ITED functions by assembling an excellent program of presentations for the AECT conference. The combined Board and Membership breakfast meeting brings ITED members together. The Newsletter is intended to encourage communication and professional dialog. The Convention Internship draws new members and the Exemplary Training Award recognizes achievements. ITED also links AECT to business and industry and promotes the practical contributions of educational communications and technology to the work place.

The most important goal for ITED is to maintain the good things that are working well to meet member needs. These foundational aspects of ITED are endorsed here: sensible leadership and productive activities. The second priority is to continue coordinating with the other parts of AECT. The third priority is to invite more members to participate in governance. The fourth priority is keeping up our efforts for visibility by letting people know who we are and what we do.

ITED ELECTION BALLOT

Complete the ballot below, indicating your choices for the various ITED Executive offices.

Please return the ballot to arrive no later than Monday, January 11, 1993.

You can either mail this ballot to:

Dr. Robin Taylor
12 Briarwood Court
Princeton, NJ 08540

or FAX it to: (201) 822-9082

_____

President-Elect (vote for one):

[ ] Andrew Yeaman

[ ] Write-in:_____

Director-at-Large (vote for two):

[ ] Albert "Chip" Ingram

[ ] Robin Taylor

[ ] Write-in:_____

[ ] Write-in:_____

_____

ITED Membership Applications Invited From AECT Members And Nonmembers

Industrial Training and Education Division (ITED)

ITED is involved with designing, planning, and managing training programs; and works to promote maximum utilization of educational techniques and media that are effective in practical use.

Send this form (or a copy) to

Association for Educational Communications and Technology

1025 Vermont Avenue NW # 820
Washington, DC 20005

Telephone (202) 347-7834 for student dues rates and for copies of the ITED brochure.

Please check the appropriate boxes:

☐ I am already an AECT Member and wish to join ITED. Division fee: $10.00.

☐ I wish to join both AECT and ITED. Membership fee: $65.00.*

☐ My check for $_____, payable to AECT, is enclosed.

☐ Charge dues in the amount of $_____ to my credit card.
Circle: MasterCard VISA Diners Club Carte Blanche

Account # _____ Exp. Date _____

Signature _____ Tel. _____

Address _____

* Includes free ITED membership and subscription to *TechTrends.*

ITED NEWSLETTER
Dr. Andrew R. J. Yeaman, Editor
Yeaman & Associates
601 West Eleventh Avenue #1103
Denver, CO 80204-3555

FIRST CLASS MAIL

ITED NEWSLETTER

March 1993 *Industrial Training and Education Division, Association for Educational Communications and Technology*

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AECT conference in Nashville planned for February 16-20, 1994

by Andrew Yeaman

My responsibility as President-elect is to schedule the ITED program for the next conference and to coordinate it with the other AECT divisions' programs. April 9, 1993 is the day your proposals for presentations are due in the AECT national office. If you need proposal forms, call AECT at (202) 347-7834.

In 1994 the session format will allow for either 60 minute or 30 minute sessions. This revised time frame is something new to consider when putting your presentation proposal together.

Readers are needed to review proposals and volunteers are also invited to chair sessions at the conference. Please contact me directly if you wish to participate in these important ITED activities.

ITED has an excellent reputation for providing high quality sessions that are especially meaningful to the people who attend. For example, the 1993 Total Quality Management track sponsored by ITED and FETA was outstanding. Many positive comments were heard about the TQM track in New Orleans.

My own opinion is that it is great that the members of ITED are thoughtful about what is good practice. Continuing the exchange of information at our annual conference is a very important part of being professional. That we have ideas to share is the mark of our success as a group.

Job aid for ITED Newsletter writers

The purpose of the *ITED Newsletter* is to maintain communication about professional matters within the Industrial Training and Education Division.

Send articles and announcements to:
Dr. Andrew R. J. Yeaman
Yeaman & Associates
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Denver, CO 80204-3555

Telephone: (303) 534-5749

Next issue deadline: October 1

Submit both hard copy and text file on a 3.5 inch computer disk. Call first to arrange transmission by fax or e-mail.

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Do you know someone who deserves an internship?

Len Arychuk reports from Dar es Salaam

by Len Arychuk

Seems like the older you get the faster time flies by...or is it that there is not enough time in a day to get everything done. Anybody out there want a 25 hour day?

The past three months in Tanzania have just slipped away...mind you...a lot of things have been done...I have written and designed a "Teacher Training Program" for this institute customized to their needs. Presentations are going on fairly well and some days are really exciting!

We do not have all of our vehicles. As of yet, one is delivered. One is suffering from bureaucratic paper wars and the other is on order.

My staff has grown to 21 and the responsibilities are building. Speaking of building...the extension on the workshop is on the drawing board and so are the rehabilitation plans for the old building. Things seem to take a long time, so will have to be patient.

Co-operations with architects and draughts people has been great. The main problems are being solved and sometime this month the surveying and form work hopefully is in place.

Spent Xmas with other Canadians at the pool where dinner was served avec the sunshine and cool breezes.

The next couple of days were spent in Zanzibar, the famous spice island. Very old and interesting, quaint old narrow streets, many small shops and cottage type industries mainly serving the demand of the island. Major income is from spices and tourism

The trip across from Dar takes almost two hours aboard a Russian built hydrofoil.

In mid January went to the Mukutmi Wildlife Reserve (about four hours by land west from Dar) and saw many zebras, elephants, antelope of various different species, giraffes, wart hogs, water buffalo, etc.

We were fortunate enough to have a lioness and her cubs cross the road in front of our vehicle while we were parked.

On several occasions we had to engage in four wheel drive. Next month, the rainy season may start, can you just imagine the fun in this gumbo clay type soil?

The FRANCIS BAGOOLE CHILDREN'S FUND from Uganda is now depleted. However, the children are in school for this term and the shortage was covered from personal resources.

PLEASE consider sending in at least ONE DOLLAR to this fund so that the children can continue going to school.

Mail your assistance to:
FRANCIS BAGOOLE CHILDREN'S FUND
c/o Jim Davidson, 5109 Dominion St.
Burnaby, B. C., V5G 1C8, CANADA.

Jim is my manager and will deposit all funds to this account. THANKS SO MUCH!

Next month I get the opportunity to do some field work throughout the country and in my spare time hope to visit some famous sites as Mount Kilimanjaro, Serengeti National Park, the Ngorongoro Craters and so on. This is all in the Arusha area, northwest and inland form the coast at Dar.

I will keep in touch through future newsletters and the offer still stands for any assistance or information concerning health, visas, travel arrangements, safaris and other land travel.

Sincerely,

Len Arychuk
Past ITED President

AECT names new exposition InCITE '94

InCITE, the International Computing and Instructional Technology Exposition, has been selected as the name for the new exposition that will be held in conjunction with the AECT National Convention beginning in 1994.

The AECT staff has already begun working on InCITE 94 with the AECT Exhibitors Committee.

Members are encourages to submit names of companies that should be contacted regarding exhibiting in 1994.

To assist the staff in this effort, please provide the name of a contact within the company, as well as an address and telephone number, so they can be contacted with exhibiting information.

You can help the staff develop InCITE into an exciting and important new exposition by taking a few minutes so send this information to the national office.

The InCITE name and logo debuted in Washington, DC during the 1992 convention and again at the 1993 convention.

The first International Computing and Instructional Technology Exposition takes place in Nashville, TN, February 16-20, 1994.

ITED meets for business over breakfast

Members Present

Joanne Willard, Creative Training Concepts, Montclair, NJ
Andrew R. J. Yeaman, Yeaman & Associates, Denver, CO
Robin Taylor, Peacham Pedagogics, Madison, NJ
Lyle E. Grooters, Johnson County Community College, Overland Park, KS
Jim Devine, Dublin City University, Dublin, Ireland
Tish A. Cavaleri, SAIC, Martinsburg, WV
M. Sue Middendorf, U.S. Office of Personnel Management, Washington DC
Joan Middendorf, Indiana University, Bloomington, IN
Lottie Naugle, Indiana University, Bloomington, IN
Lou Bender, Applied Science Associates, Inc. McLean, VA
Francis A. Harvey, Lehigh University, Bethlehem, PA
Stuart H. Weinstein, SWL, Vienna, VA
Janet Perkins
Roberts Braden, California State University, Chico, CA

ITED Business Meeting Agenda

1. Welcome and introductions
Robin standing in for President Len Arychuk who is in Tanzania. Also absent, Jim Stonge and "Chip" Ingram, Directors-at-Large.

2. 1992 Business
Robin Taylor, Past-President
(a) 1993 Convention Intern-Joanne and Lottie
(b) Newsletter-Andrew
(c) Publicity: banner, buttons, brochure
(d) 1993 Convention program highlights and synergies
TQM Track with FETA-Joanne
Half-day workshop with DISC
Panel with Curriculum Committee
17 concurrent sessions
(e) Assembly resolutions
(f) Election results
President-elect: Andrew Yeaman
Directors-at-Large: Chip Ingram, Robin Taylor
Two positions remain open:
Secretary
Newsletter Editor

3. 1993 Business
Joanne Willard, President
(a) Registration forms for Kaffee Klatsch
(b) 1994 Convention planning-Andrew, President-elect: Proposals due April 9. Planning conference: Nashville, June 4-6
(c) 1994 Internship
(d) Bagoole education fund-Robin
(e) Recruitment and membership report
(f) 1993 Newsletter-Andrew
(g) Training Awards-Andrew and Robin
(h) Summer Leadership Conference and Internal Audit: August 5-8, Chandler, AZ

Apple Computer seeks applicants for summer internships in California

Apple Computer is accepting applications for student internships at its Research and Development Division in Cupertino, California. Internships run from approximately May through August 1993. Student interns will be involved in research, design, and usability testing of interfaces for future Apple products.

Applicants should have a good background in cognitive or experimental psychology, computer science, or industrial design; a keen interest in human computer interface design; and Macintosh experience. Please send resumes to:
Cordell Ratzlaff
Apple Computer, Inc.
20525 Mariani Ave., MS 35-G
Cupertino, CA 95014.

Notes from the Editor's electronic workstation

• There is room for you to participate as an ITED leader. Two Executive positions are vacant and may be filled by Presidential appointment. You are encouraged to apply for these openings to Joanne Willard. There are other possibilities for involvement at present and in the near future.

• AECT appears to be still in transition. Our national organization must consider what it is that can be done to maintain the things we are doing well.

Bigger is seldom an improvement for everyone. When institutions increase in size they tend to overemphasize what is good for the whole. If there is a larger membership, perhaps through merger or affiliation, then AECT must also be more responsive to the needs of members who are not part of the majority. Specialization should be acknowledged and actively supported.

The members of this division have unique interests which deserve to be valued. ITED draws respect as the link between AECT and education and training in the workplace.

• To the public our field may seem to deserve the reputation of being technical, reductionistic and bureaucratic. However, the ITED sessions at our annual conference have a different flavor. It is plain that we are committed to making instruction a good experience for people.

Our interests are practical but instructional programs require imagination to succeed. We use knowledge from diverse areas, such as human abilities, performance and systematic planning, and we creatively develop or manage effective training. It is to our credit that we also consider the social setting and try to humanize the process of learning.

ITED accepts entries for the next training awards program

The ITED Training Awards Program honors outstanding industrial training systems.

Previous awards for exemplary technical and professional training products have gone to military, financial, computer, and educational organizations.

An Awards Committee evaluates the entries according to criteria like fulfillment of stated purposes, quality of support materials, language style and clarity, instructional design, appropriateness and quality of media , and production values. Copies of the rating system will be available after judging is complete.

Winners will be announced at the ITED Business Meeting during the AECT National Convention in Nashville, TN in February, 1994. Announcements will also be published in the ITED Newsletter.

The submission form is available from the address below. You should complete a separate form for each entry.

You must either own the program you are submitting or have the owner's permission to submit it to the ITED Training Awards Program.

Please submit no more than three (3) entries for yourself or your company.

If the Design Document for your program is available, please submit a copy along with the materials.

Also, if evaluation data are available, please submit a summary.

Be sure to include all the materials that are necessary to make the instructional package work.

If your program requires special equipment (e.g. a mainframe computer), we may ask you to provide facilities for viewing it.

The ITED Training Awards Program last gave the Exemplary Award to Pacific Bell of San Ramone, California in 1992.

The winning entry was *The Course Developer Competencies Course/Curriculum*

The Course Developer Competencies Course/Curriculum is a 10 day course delivered by print, videotape, CBT and various mixed media. It was produced entirely inhouse at Pacific Bell.

The submission fee is $35 for each entry from ITED members and $50 for each entry from non-members. Make checks payable to ITED.

Send the check, application and all materials to:

ITED Training Awards Program
c/o Dr. Albert L. Ingram
Instructional and Training Technology
Governors State University
University Park, IL 60466

We must receive all submissions by November 1, 1993.

All entries will be returned via UPS, so include a street address.

If you have questions or problems, please contact Dr. Ingram at (708) 534-5000.

Penn State needs a Director of Instructional Services

The Pennsylvania State University seeks a knowledgeable professional with 5-7 years' experience in instructional design, educational television, video, and multimedia to direct the Instructional Services Unit of Educational Communications/WPSX-TV. This increasingly important unit is one of several well-recognized Continuing Education resources that provide Penn State with the potential to make a significant contribution to the field of distance education.

Reporting to the General Manager, your primary responsibility will be to manage the design, development and production of all instructional technology projects. In this visible position, you will help create a shared vision of distance education within the University and position the unit as a partner with Continuing Education Program Development, academic units, and corporate clients in the development of distance education opportunities. We will also rely on you to maintain technical excellence and ensure that clients receive quality products.

Our selected candidate will possess substantial experience in project development and client relations, particularly in the corporate/private sector. Your background must reflect experience in the design and delivery of distance education or related services. We require leadership and team building experience as well as previous managerial, supervisory and budget management responsibilities. Strong communication and grant writing skills are essential. TQM experience is desirable. A bachelor's degree, or equivalent, is necessary.

The University offers major medical/ hospitalization, dental and vision insurance, tax-deferred annuities, paid vacation, holidays, and other attractive benefits. We provide a competitive salary.

Send letter of application, resume and salary requirements to:

Employment Division
JOB #: A-2502
120 S. Burrowes Street
University Park, PA 16801

APPLICATION DEADLINE:
April 7, 1993

An Affirmative Action/Equal Opportunity Employer.
Women and Minorities Encouraged to Apply.

Intern describes 1993 conference experience

by Lottie Naugle

Thanks to ITED, my first AECT conference will not be my last. ITED's internship allowed me to attend my first AECT conference and start what I hope will be the first of many years of AECT conferences to come. Joanne Willard, Andrew Yeaman, and Robin Taylor were excellent hosts and made sure I was a part of the AECT activities.

I had the pleasure of attending several of the TQM presentations that were part of the TQM track sponsored by ITED. The quality and relevance of the presentations were outstanding. These presentations were a credit to ITED and invaluable to me as a fledgling training practitioner.

Helping collect the strategic planning surveys and attending Assembly sessions provided insight into the governance of AECT that few first timers ever experience. The hard work and concern expressed by so many members to insure that AECT serves its members and divisions well was very impressive. Open debate and discussion was encouraged on all issues of interest to the membership. I was happy to see that the issues I struggle with at Indiana University were receiving attention by such devoted and capable members.

Of course the sessions had a hard time living up to the experience of having my hand kissed by Justin Wilson. And Justin was just one of the many interesting and entertaining attractions of New Orleans. All of the good sessions and good times made the conference days fly by. Sunday arrived much too soon.

ITED's annual Kaffee Klatsch was a proper ending to an excellent conference. The Kaffee Klatsch was a comfortable, relaxed way to meet more AECT members interested in training. I strongly encourage everyone to attend the Kaffee Klatsch in Nashville next year, I plan to.

ITED offers $1,000 internship award

This prestigious internship award is offered by ITED for participation in the AECT Conference in Nashville, February 16-20, 1994.

The purpose of the ITED internship award is to encourage new professionals in business and industry training and education to attend their first AECT national convention.

Applicants may be either graduate students or new graduates who are not past the second year of their career by the entry deadline.

Applicants for the ITED internship award are required to write a 500 word essay identifying and describing their business orientation, leadership skills and financial need.

A letter of recommendation is required from a professor or employer who is well acquainted with the candidate.

ITED is the Industrial Training and Education Division of the Association for Educational Communications and Technology.

ITED is involved with designing, planning, and managing training programs; and works to promote maximum utilization of educational techniques and media that are effective in practical use.

Internship applicants must be members of both ITED and AECT.

Information about joining and the special dues rate for students can be obtained from:

Association for Educational Communications and Technology
1025 Vermont Avenue NW # 820
Washington, DC 20005
Telephone: (202) 347-7834

The entry deadline is June 15, 1993.

The competition for the ITED intership award will be coordinated by:

Joanne B. Willard, ITED President,
Creative Training Concepts
77 Park Street, 4th Floor
Montclair, NJ 07042
Telephone: (201) 509-6944

Quote of the month

What we need to consider about the computer has nothing to do with its efficiency as a teaching tool. We need to know in what ways it is altering our conception of learning, and how, in conjunction with television, it undermines the old idea of school. Who cares how many boxes of cereal can be sold via television? We need to know if television changes our conception of reality, the relationship of the rich to the poor, the idea of happiness itself....New technologies alter the structure of our interests: the things we think *about*. They alter the character of our symbols: the things we think *with*. And they alter the nature of community: the arena in which thoughts develop.

Neil Postman (1992, pp. 19-20) *Technopoly: The Surrender of Culture to Technology.*

ITED NEWSLETTER

February 1994 *Industrial Training and Education Division, Association for Educational Communications and Technology*

Considering the future of AECT ...

by Andrew Yeaman, ITED President-elect

When considering the future of AECT it is necessary to ask, "Just whose Association is this, anyway?"

If you look in your Membership Directory, you can read on page four that AECT's mission is to link professionals. Interests centering on educational communications are common to members in several technological occupations.

The Association's goal, on page eight, is to "Facilitate humane learning through the systematic development, utilization, and management of learning resources, which include people, processes, and media in educational settings."

As a division, ITED contributes by representing professionals in business, consulting, government, commercial organizations, and the non-school public sector. Our Division will definitely be present and visible in the sessions at the Nashville conference.

These are important things to remember when putting into focus recent events: AECT's split from ICIA, negotiations with ISTE, and cosponsoring the InCite exhibition and conference with ADCIS.

In regard to deficient budgets, a likely solution is in reorganizing some AECT divisions to overlap less and be more distinctly representative of members' occupations. For example, two stronger divisions would result from merging ITED with DID and RTD: One division for **business** (and related areas) and another for members in **academe**.

It seems that ITED members generally like AECT's structure (contrary to Vision 2000) but if you have questions or suggestions, please contact the officers of the ITED Executive.

Using focus groups helps with the collection of real-life data

by Rebecca Rinehart

Focus groups help in assessing needs, developing plans, recruiting new clientele, and in discovering customers' decision processes. The purpose of a focus group is to collect qualitative data from a focused discussion. Topics include: testing new programs and ideas, improving techniques, and generating information for conducting questionnaire surveys. Focus groups are used to discover preferences and to provide information about why people think or feel the way they do. They provide information on perceptions, feelings, and attitudes.

For many years focus groups were used in the private sector, especially for market research. More recently, public sector organizations are using the procedure. In particular, education, medicine, and social agencies utilize focus groups in evaluating programs.

The interactive quality of focus groups allows insight into why certain opinions are held. Discussions are conducted several times with similar types of participants to identify trends and patterns.

The results can improve planning and design, provide evaluation of programs, and suggest better marketing strategies.

Continues on page 2

Job aid for ITED Newsletter writers

The purpose of the *ITED Newsletter* is to maintain communication about professional matters within the Industrial Training and Education Division.

Send articles and announcements to:
Dr. Andrew R. J. Yeaman
Yeaman & Associates
7152 West Eightyfourth Way #708
Arvada, CO 80003-1513

Telephone (303) 456-1592
INTERNET
ayeaman@cudnvr.denver.colorado.edu

Submit hard copy and a 3.5 inch computer disk with a text file. Call first to arrange transmission by fax.

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Focus group procedures explained step by step

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by Rebecca Rinehart

Focus groups bring together 7 to 12 participants, an interviewer and an assistant interviewer or scribe. The number of participants must be small enough for everyone to participate and large enough to provide diversity.

The interviewer directs the discussion, keeps the conversation flowing, and takes minimal notes. These identify future questions to be asked.

If possible, the environment should be neutral. It should be a place where everyone can feel comfortable and speak easily.

The analysis of the discussions will provide answers for such questions as how a product, service, or opportunity is perceived.

Focus Groups in Memphis

At Memphis State University, researchers have used focus groups in several research projects. Sometimes focus groups are used alone for qualitative research. Sometimes they are used in conjunction with quantitative research.

The participants are the subject matter experts. Fifth and sixth-graders have been interviewed about school environment. Adolescents were the subjects of another focus group that examined their community.

Employees formed the focus group for an empowerment study. In a comprehensive study of teacher preparation, focus groups have been conducted with graduate and undergraduate education majors from all licensure areas.

The participants in focus groups can vary greatly depending upon who has the information the interviewer wants to obtain.

Focus Group Interviewers Need Their Own Training Program

Prior to any focus group at Memphis State, a workshop is conducted for all interviewers or assistant interviewers. Either a one-day session or two half-day sessions are recommended.

The first portion is an overview with practical information. The second half is a role play discussion with colleagues. Each participant needs to experience the roles of interviewer and assistant. The group of interviewers critiques the session and identifies some of the varieties of responses.

Conducting Focus Groups

For the actual focus group, the arrival of the participants is an opportunity for everyone to warm up for the discussion. When the participants come in for the focus group session, the interviewer or assistant should greet them and begin small talk. The warm up should avoid the focused issues and concentrate on common human experiences. During this time the interviewer observes participant interaction and notes individuals who may later dominate the group.

Continues on page 3

Advantages of focus groups

- real-life data in a social environment
- flexibility
- high face validity
- quick results
- low cost

Limitations of focus groups

- less control than in individual interviews
- difficult to analyze data
- the interviewer must have special skills
- differences between groups may be a problem
- groups are difficult to assemble
- the environment must support discussion

Abstracted from: Krueger, R. K. (1988). *Focus groups: A practical guide for applied research.* Newbury Park, CA: Sage Publications.

Focus groups

Continued from page 2

The first moments of the interview are critical. The interviewer must quickly welcome the participants, give an overview and topic, provide the ground rules, and set the tone of the discussion.

Focus Group Discussions

The first question is designed to engage all participants one at a time. In later questions, the interviewer guides the group to narrow the discussion to certain specific topics of primary concern. The rule of thumb is to go from general to specific, and from the larger more global issues to the specific topics of concern.

Questions are limited from 6 to 10 with sub-points or probes within each question. The interviewer will have a list of questions but will use it only as a reminder of upcoming questions. Group discussions are unpredictable and the topics may take detours or leaps.

An example of the sequence of topics for questions would be current situation, ideal situation, strengths of current programs, deficiencies in current programs, limitations, and recommendations. The following are six questions used for the empowerment focus groups.

(1) How would you describe the change to the empowerment concept ?

(2) Has the decision-making process changed and how should it be ideally?

(3) Has the change been of value to you?

(4) What has been of most value to you?

(5) What has been of least value to you?

(6) When employees are involved in the decision-making process, are these decisions implemented?

Collecting Data

Sessions are typically recorded in two ways: by a tape recorder and with written notes or computer transcriptions. The assistant interviewer or scribe takes the notes, operates the tape recorder, and handles any other disruptions such as lighting, seating, switching places, and late arrivals. The assistant notes the participants' body language, intonation, and inconsistencies. This second set of eyes and ears increases the quantity of data collected and the validity of the analysis.

"The purpose of a focus group is to collect qualitative data from a focused discussion."

There are several options for closing the focus group. The most common is to simply thank the participants for attending. It is also helpful to end by briefly summarizing the main points of view and asking if these perceptions are accurate. Ask for clarification if participants do not seem to agree.

Another way of obtaining closure is to describe the purpose of the study and ask an open-ended question such as, "Do you have any additional thoughts?" or "Is there anything missing from our conversation?"

A session typically lasts about an hour and a half to two hours with no formal break. The interviewing process is fatiguing for the interviewer and the assistant. It is advisable for interviewers not to conduct more than two focus groups on the same day.

Analysis

After the session, the interviewer and assistant conduct a debriefing to compare notes and share observations. It may be helpful to record the debriefing. The intent is to arrive at a short summary. From my experiences in running focus groups, the interview team mentally needs the debriefing process following the intensity of the session. Although the situation may not be ideal, and some steps may not be possible, the debriefing is essential.

The analyst is looking for trends and patterns that occur across various groups. People who had first hand exposure to each discussion are the best to analyze the data. The sequence of analysis is to read all the summaries and each transcription of the tapes. It is a careful and deliberate process of examining, categorizing, and tabulating evidence. Conclusions are based on a chain of evidence that is included in the report so others may understand the analyst's logic in coming to conclusions.

The main topics from the transcriptions of the focus groups become the categories for analysis. Categories may be added or deleted as additional focus groups are conducted.

Format for Focus Group Reports

I. Cover page

The front cover should show the title, names of people receiving or commissioning the report, the names of the researchers, and the date the report is submitted.

II. Summary

The brief, well-written summary describes why focus groups were conducted and lists major conclusions and recommendations. The summary is often limited to two pages. It should be able to stand alone. Although this section is placed first in the report, it is the last part to be written.

III. Table of Contents

This section is useful for lengthy reports but not when the report is brief.

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Focus groups

Continued from page 3

IV. Statement of the Problem

This section includes the statement of the problem, key questions, and research methods. Describe the purpose of the study and include a brief description of the focus group interviews: number of focus groups, methods for selecting participants, and number of people in each group.

V. Results

The body of the report contains the results and is composed of the key issues of focus for the study and the major ideas that emerged from the discussion. The body can be organized using one of three different styles or models:

Raw data model: State the question or idea followed by all participant comments.

When reporting raw data, the researcher can include all comments from the focus group and then arrange them into clusters or categories after reviewing all comments. When appropriate, the comments can be arranged on a continuum such as: degree of support, agreement versus disagreement, or intensity.

This style of reporting provides the reader with the total range of comments. However, the sheer length of the report discourages careful reading. The raw data model of reporting is appropriate when the researcher has limited experience, when the client wants all comments, or when a descriptive or interpretive report follows.

Descriptive model: A descriptive summary followed by illustrative quotations.

The descriptive summary begins with a summary paragraph and then includes illustrative quotes from the discussions. The quotes help readers understand the ways in which participants answered the questions.

Interpretative model: Descriptive summary with illustrative quotes followed by interpretation: The style chosen depends on the intended audience.

The interpretative style builds on the descriptive report by including a section on what the data means: interpretation.

VI. Limitations

This section can be placed within the results category if it is brief. Limitations refer to those elements of the study that limit the transfer of findings, and the use of procedures that prevent conclusive statements. At times, the findings can yield different interpretations of results, and these alternative explanations are contained in this section of the written report.

VII. Conclusions and Recommendations

Conclusions pull the findings together into clear summary statements. Recommendations are optional and not automatically included in focus group reports. Recommendations are future oriented and provide suggestions about what might be done with the results. Sometimes they are very specific but they can also be stated as generalities.

VIII. Appendix

The appendix includes additional materials that might be helpful to the reader. For example, include the question sequence for the focus group. Additional quotations may also be included in the appendix.

Concluding Summary

The purpose of focus groups is to collect qualitative data from a few participants who provide information about why people think or feel the way they do. Typically focus groups are one and a half to two hours in length. The interviewer leads the discussion, and the assistant or scribe records the session.

Analyzing the data can be difficult. The analyst is looking for trends and patterns that occur across groups. All sessions are transcribed, categories are decided, and the data is grouped into categories. Conclusions are based on a chain of evidence. Finally, results can be reported in three different styles or models: raw data model, descriptive model, or interpretative model.

Suggestions for Further Reading

The Sage Publications series of blue monographs on qualitative investigation is highly recommended.

Gubrium, J. (1988). *Analyzing field reality.* Newbury Park, CA: Sage Publications.

Johnson, J. C. (1990). *Selecting ethnographic informants.* Newbury Park, CA: Sage Publications.

Krueger, R. K. (1988). *Focus groups : A practical guide for applied research.* Newbury Park, CA: Sage Publications.

McCracken, G. (1988). *The long interview.* Newbury Park, CA: Sage Publications.

Richardson, L. (1990). *Writing strategies reaching diverse audiences.* Newbury Park, CA: Sage Publications.

Spradley, J. P. (1979). *The ethnographic interview.* New York: Holt, Rinehart, and Winston.

About the Author

Dr. Rebecca Rinehart received her Ed.D. in December, 1993 from Memphis State University. She interned at Dow Chemical Company in their Midland, Michigan headquarters. Currently she is Managing Editor at *ETR&D*. She is strongly interested in developing training programs and in evaluating training activities for business/industry, as well as, consulting and research.

Designers at Århus in Denmark rethink the social aspects of design processes so that users can participate in planning

by Susanne Bødker, Joan Greenbaum, and Morten Kyng

*Selected from: Setting the stage for design as action (pp. 146-148), in Greenbaum, J. & Kyng, M. (Eds.). (1991). **Design at Work: Cooperative Design of Computer Systems.** Hillsdale, NJ: Lawrence Erlbaum Assoc.*

Human work and activity is always mediated by artifacts such as tools and language. People do not focus their attention on these artifacts; instead artifacts help people focus attention on other objects or subjects.

The typographer uses paste and scissors to do paper paste-up, to focus on the newspaper page; the incinerator plant operator uses the camera picture of the flame to control incineration.

These artifacts are present when people are introduced into an activity, but the artifacts are also a product of that activity, and as such they are constantly changed through the activity. Each action in an activity is given meaning through practice shared with others.

Activity as Being

For example, writing a specific code in computer-based typography indicates to both the computer and the newspaper workers that the line following this code is a headline.

The writing of the code is at the same time based on the physical and social conditions of the situation that the typographer is in. The conditions "trigger" actual, detailed ways of acting. The way of making a headline depends on the technology that the typographer is using, and the need to type some letters or select some text.

Artifacts have no meaning in isolation. They are given meaning only through their incorporation into social practice. It is not until they have been incorporated into practice that they can be the basis for thought and reflection. When we design artifacts, they can serve to mediate the activity of the users, and at the same time become meaningful tools in the users' practice.

What is the Context of Design?

A design process where a group of users and designers cooperates does not take place in a vacuum. In most organizations, some groups have more power and better resources than others. Those who have the most power and resources are usually management, not the end-users.

To help users get a forum where they can take an active part in design means to set up situations where they can act according to their own rules, and not simply according to the rules of their managers. The weakest groups in particular need the strongest support in formulation of their demands and ideas for the future. There may be conflicting interests among the groups, but these conflicts may be turned into resources for the project, if the situations are set up appropriately.

This may mean that the designers and users should not just establish one project group of all involved parties, but should work with different groups of people at different times. At the same time, the different groups need to be exposed to each other's demands and suggestions, which emphasizes the need for designers as coordinators of the activities. In setting up ways to work with such groups, we can learn from women's research which focuses on ways of working cooperatively.

The Design Paradox

Designers, like research scientists, should not lean too strongly on their own understanding, but should enter the process with an open mind. It also means being involved in the action of design and using methods that support involvement.

There is no simple way out. It is a manifestation of the paradox of design. On the one hand, design must be firmly rooted in the work practices of both users and designers. On the other hand it must confront these practices with their existing shortcomings and introduce new artifacts such as mock-ups, prototypes, or metaphors, and potentially cause breakdowns.

If we stick to our old well-known and "secure" design practices, we as designers end up like those caricatures of users who resist change; an excuse many designers claim for not involving users in the design process.

Notes from the Editor's electronic workstation

In the last few months I moved my office and apartment to a new location. I left downtown Denver for Arvada, which is a suburb half way to Boulder. My new telephone and address are on this *ITED Newsletter.*

Recently I have had success with my writing: A chapter published in Mike Moore and Frank Dwyer's book on *Visual Literacy*, and another chapter in Bob Muffoletto and Nancy Knupfer's *Computers in Education.* Also, I was the guest editor for this month's *Educational Technology* on the ethical responsibilities of educational technology to society.

I am pleased this *Newsletter* has an excellent feature article and again thank all of the members who have written articles since I took on the role of editor. If you would like to write for the *ITED Newsletter* your contribution will be welcomed. I will gladly work with you in developing an article from your ideas.

Do not miss enjoying the many cultural attractions of Nashville while attending the 1994 conference. These include the Parthenon in Centennial Park and the goddess Athena.

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ITED sponsors sessions for the1994 conference

Wednesday, February 16

8:00 am-12:30 pm
Advanced Interstate Compressed Video: Pushing Back the Frontier
Faculty: Barbara Hakes, University of Wyoming
Cecelia Box, University of Wyoming
Steven G. Sachs, Northern Virginia Community College
John Cochenour, University of Wyoming
Workshop fee: $65

1:00 pm-2:00 pm
What Works in Industrial and Military Training: A Research Summary of Adult Learning
Chair: Vicki S. Napper, Southwest Research Institute
Faculty: Frederick G. Knirk, University of Southern California

This is a summary of our knowledge about instruction. It provides pragmatic assistance to instructional designers, instructional managers and to instructors. The conclusions are a synthesis of three years' effort in identifying consistent research-based knowledge about training.

2:15 pm-3:15 pm
Anchored Instruction
(Sponsored by HeSCA)
Chair: Joni Dunlap, University of Colorado at Denver
Implementing a HyperCard Stack-Based Anchored Instruction for University Introductory Computer Courses
Faculty: Annie Inhae Kim, Utah State University
Wayne Carrol, Utah State University

HyperCard stack-based anchored instruction has been implemented in a university introductory computer course. While anchored instruction typically employs a videodisc based format, HyperCard stacks seem to have an equivalent potential as an effective anchor providing an engaging and problem-rich learning environment for students and teachers.

2:15 pm-3:15 pm
Interactive Compressed Video, Distance Learning and the Adult Learner
Faculty: Warren Ostendorf, Central Connecticut State University

2:15 pm-3:15 pm
Who's Doing What, Where...And How To Teach It
1 1993 Survey of Compressed Video Applications: Higher Education, K-12, and the Private Sector
Faculty: Barbara Hakes, University of Wyoming
Cecelia Box, University of Wyoming
Steven G. Sachs, Northern Virginia Community College
John Cochenour, University of Wyoming
2 Two-Way Interactive Telecommunications in Graduate Level Teacher Professional Development
Faculty: Robert V. Price, Texas Tech University
Judi Repman, Texas Tech University

3:30 pm-4:30 pm
Simulations and Hypermedia
Chair: May Lowry, University of Colorado at Denver
1 Guidelines for Designing Contextualized Simulations for Learning English as a Foreign Language
Faculty: Doris Lee, Pennsylvania State-Great Valley

This presentation explores the need for designing contextualized computer-based simulations with realistic activities and tasks to facilitate Asian student's communicative competence in English. Also presented are practical and useful guidelines for the design, development and implementation of simulated learning situations for learning English as a foreign language.

2 Efficient Design and Production of Effective Video for Use in Hypermedia Training
Faculty: Devon L. Frey, Lehigh University
Robert M. Fontaine, Lehigh University

The presenters report the development of instructional video resources for an advanced integrated hypermedia adult training curriculum. It presents a process model and innovative design and production techniques used to promote cost- and time-effectiveness for the program's development and to support the higher learning goals of the curriculum.

Thursday, February 17

8:00 am-8:45 am
AECT Business Session

8:45 am-9:45 am
Embedded Training and Macro Instructional Systems
Chair: Rebecca Rinehart, Memphis State University
1 Macro I.D.: Using the Instructional Design Paradigm to Plan Traditional Degree Programs
Faculty: Anthony A. Piña, Arizona State University

This presentation examines an application of the systematic instructional design process to the design of non-traditional adult degree programs. The underlying paradigms of instructional design and non-traditional degree programs are compared. Implications for use of the I.S.D process beyond the design of instruction are discussed.

2 Using Conceptual Models in Embedded Training Environments
Faculty: Mary E. Williams, University of Oklahoma

Examination of the use of conceptual models to help learners develop "meaningful" mental models for the purpose of facilitating learning in an embedded training environment.

10:00 am
Grand Opening of the InCite Exhibits Cash Prize Drawing: Registrants must be present to win.

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1:00 pm-2:00 pm

Presidential Session

James D. Finn Revisited: A Look at Finn's Contributions to Educational Technology

AECT President: Kent L. Gustafson
Chair: Andrew R. J. Yeaman, ITED President-elect
1 Finn's Contributions to the DAVI/ AECT as a Professional Organization
Faculty: Donald Ely, Syracuse University
2 Finn's Contributions to the Development of Academic Programs
Faculty: Robert Heinich, Indiana University
3 Finn's Contributions to the Idea that Educational Technology is a Process.
Faculty: Alan Januszewski, SUNY-Potsdam
Discussant: J. Randall Koetting, University of Nevada-Reno

This session answers, "Why do educational technologists think the way they do today about educational technology?"

James D. Finn was a president of DAVI, established an influential graduate program at the University of Southern California, directed the Technological Development Project in the 1960s, and established that educational technology is a process.

1:00 pm-2:00 pm

Analogies and Storyboards

Chair: Joan K. Middendorf, Indiana University
1 Creating Instructional Analogies
Faculty: Don Stepich, Northeastern Illinois University
Tim Newby, Purdue University

Analogies have both motivational and informative benefits in educating. This session is designed to provide practice in the use of this powerful instructional tool. A set of practical guidelines for creating analogies will be demonstrated. Participants will then have an opportunity to practice applying those principles by creating an analogy.

2 Building Electronic Storyboards with Project Management Reports
Faculty: Vicki S. Napper, Southwest Research Institute

An electronic storyboard can provide fast, effective project management support as well as necessary design information. Techniques will be taught for making your own storyboard.

2:15 pm-3:15 pm

Standards for CBT and Guidelines for Collaborative Problem-Solving

Chair: Len Arychuk, LARK Associates and British Columbia Institute of Technology, Canada
1 Creating CBT Standards for Your Organization: Lessons Learned
Faculty: Jean A. Derco, Martin Marietta Energy Systems, Inc.
Barbara E. Tischler, Martin Marietta Energy Systems, Inc.
Donna Stokes, Martin Marietta Energy Systems, Inc.

Two instructional designers fresh from the trenches of CBT standards development will share their experiences in developing a corporate standard on CBT that works to assure consistency in appearance, structure and quality for all of the CBT courses produced both in-house and by vendors.

2 Developing Collaborative Problem-Solving Groups Using REAL Design Guidelines
Faculty: Joanna (Joni) Dunlap, University of Colorado at Denver

Learning to think critically and to construct complex knowledge structures are necessary skills to solve technical, social, economic, political and scientific problems in a modern, competitive society. Therefore, instructional methods that promote the development of high-level thinking skills and problem-solving abilities are in high demand, especially in corporate settings. Using the rich environments for active learning (REALs) design guidelines, collaborative problem-solving groups were constructed to help facilitate development of effective problem-solvers and decision-makers.

4:45 pm-5:45 pm

Agile Organizations and the Information Highway

Chair: Lottie Naugle, Indiana University
1 Characteristics of Agile Organizations for Training Development and Training Delivery
Faculty: Francis A. Harvey, Lehigh University

This paper examines the emerging concept of agile organizations and the implications for developing and delivering training. Topics: definition, characteristics, the relationship of Total Quality Management to agility, "just-in-time" information systems, and the virtual training corporation.

2 Using Hypermedia to Navigate the Information Highway of Interactive Technology
Faculty: Gary Sadavage, Lehigh University

This paper describes specific design and production techniques used in developing a hypermedia support system for training and jobsite use of an expert system for bridge fatigue investigation. Specific approaches to presenting and filtering large amounts of multimedia information and to integrating technology-based traditional training will be analyzed.

Friday, February 18

8:00 am-9:00 am

Presentation Techniques

Chair: Samuel E. Wells, Jr., Gallaudet University
Faculty: Carl Stafford, Purdue University
James Russell, Purdue University

This presentation provides valuable tips for planning, preparing, and making presentations. Techniques are included for placement of equipment, dealing with anxiety, delivery stance, voice, and eye contact. Guidelines for visual design and utilization are included.

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8:00 am-9:00 am
Motivation and the Design of Instruction
1 Applications of an Adult Motivational Instructional Design Model
Faculty: Roy M. Bohlin, California State University
William D. Milheim, Penn State-Great Valley
2 Utilizing Intrinsic Motivation in the Design of Instruction
Faculty: Randy Rezabek, University of Oklahoma

9:15 am-10:15 am
Distance Education
Chair: Sue M. Middendorf, U. S. Office of Personnel Management
Distance Education: K-12 to Advanced Engineering for Design and Decision Making
Faculty: John Childs, Wayne State University
Kevin Barrons, Saginaw Public Schools
Oscar Britton, Ford Motor Company
Jack Keck, Cheboygan-Otsego-Presque Isle ISD

Summarizes distance learning by interactive two-way television with active response. Reviews distance learning in masters degree engineering courses delivered to engineers' at workstations and distance learning in a large urban school district. Specific recommendations are made for distance education design, development and management. The practical experiences of the panel will be shared.

11:45 am-12:45 pm
Modern Machines and Postmodern Cyborgs (Sponsored by IVLA)
Chair: Andrew R.J. Yeaman
1 Cyborgs Are Us
Faculty: Andrew R.J. Yeaman, Yeaman and Associates, Denver, CO
2 Contradictory Spaces: Pleasure, Comedy and the Seduction of the Cyborg Discourse
Faculty: P.K. Jamison, Indianapolis Medical School
3 Cyborgian Orgasm: A Mythology of Educational Organizational Bliss
Faculty: Jane H. Anderson, Consultant, Intuitive Edge Too, Evanston, IL

The transition from the machine to the cyborg describes the movement from modern society to postmodern society. Although imaginary, cyborg stories tell us about ourselves. They reflect the reality of people and machines being blurred together. This evolutionary event greatly influences instruction and training as social technologies.

4:45 pm-5:45 pm
Personality Types: Do They Affect Program Choice?
Chair: Devon L. Frey, Lehigh University
Faculty: Renee M. Eggers, John Carroll University
Mary Tipton, Kent State University

This presentation focuses on identifying the personality types of graduate students in an Instructional Technology program and those in a Media Specialist program. Personality differences may account for the tension that surfaces when students from the two programs enroll in the same course.

4:45 pm-5:45 pm
WIT and Wisdom: Strategies for Success
Faculty: Landra L. Rezabek, University of Wyoming
Ellen D. Wagner, University of Northern Colorado

Though this session is presented from the perspective of women in technology (WIT), all conference attendees are encouraged to participate in this discussion of challenges facing professionals in the field. Panelists with diverse experiences and working in a variety of environments will share their insights and will stimulate audience interaction.

6:00 pm-8:00 pm
FETA, ITED, HESCA RECEPTION

Saturday, February 19

7:30 am-9:00 am
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ITED sessions continue on page 9

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Saturday, February 19 continued

9:15 am-10:15 am
Needs Analysis for Training in Business (Sponsored by International)
Chair: P. K. Jamison, Indianapolis Medical School
Training Needs Analysis: Towards a Computer-Based Approach
Faculty: Alistair Stewart, Dundee Institute of Technology, Scotland

To overcome the inadequate TNA function in many small to medium sized enterprises, this paper presents an integrated computer-based solution to the identification of training needs.

9:15 am-10:15 am
UTC-University Collaboration in the Design of Workplace Engineering Education
Chair: Jim Teslow, COMET, Boulder, Colorado
Faculty: Doris R. Brodeur, The Hartford Graduate Center
Stephen A. Bieglecki, The Hartford Graduate Center

Highlights examples of United Technologies Corporation's strategy for collaborating with universities in the design and delivery of graduate engineering education to multiple work sites via interactive compressed video. Includes lessons learned in the past two years.

3:30 pm-4:30 pm
Presenting Powerful Presentations
Chair: Sandra G. Behrens, Carnegie Mellon University
Faculty: Don E. Descy, Mankato State University

This non-technical "presentation" will show simple techniques to elevate your presentation from average to outstanding. It will show you how to control every aspect of your presentation from the audience to your own anxiety. Presentation graphics, handouts, using your equipment and room effectively, dealing with questions, and using body language and dress will be emphasized.

Len Arychuk reports on his African visits

September 30, 1993

Our team in Dar es Salaam finished their contracts at the end of June and left for vacations on their way back to Canada. Moi was left holding the bag so to speak: much unfinished business to take care of-without going into any gory and boring details. Worked most of July pounding at the bureaucratic ways of the Tanzanian government and the World Bank.

Interesting and frustrating...All in all a learning experience that is indeed valuable for any next type of contract similiar to this. Learning new dance steps all the time.

On July 1 moved out of my concrete cube flat into a suite at the Kunduchi Beach Hotel—Hotel that is about 18 kilometers from work and takes less time to drive to work than originally. The patio view is about 50 meters from the Indian Ocean. Wow!!!

I'm so excited about it...that I have stayed home a lot which is unusual for me, since I like to meet people most of the time. However, getting some reading done which has been badly neglected, which I love to do anyway. Started research work on writing *An East African Cookbook for Bachelors*...Ha!!!!

During the last week of July traveled the north of Tanzania as follows:

Arusha, a large almost touristy town with many fine shops and restaurants. Busy with many expatriates, new businesses, small industry; a gateway to Kenya and to many game parks. The local park consists of the Momella Lakes, Ngurdoto and Meru Craters. On a clear day one can see Mount Kilimanjaro, unfortunately we had a lot of overcast.

The Ngorongoro Crater (one of the 7 wonders of the world) about 2,200 metres above sea level and full of wild animals. Got on video a lion devouring a wildebeest!! A rhino and her baby!!! Very interesting and outstanding!!!

Lake Manyara Lodge; beautifully set on a high ridge overlooking the lake at the base of the great Rift Valley.

Serengeti (means endless plains) National Park, close to 15,000 square kilometers scattered with patches of acacia bush, forest, rock outcrops and small rivers, enclosed many wild animals such as lion, cheetah, hyena, hippo, eland, giraffe, impala, waterbuck, klipspringer, baboon, monkey, warthog, and hunting dogs. There was a lot of bird life including vultures and ostriches.

Olduvai Gorge was also interesting. Dr. Leakey had found remains of prehistoric elephants, giant horned sheep and large ostriches. In 1959 remains of the Nutcracker Man were found and footprints of hominoids about 3.5 million years old.

Accomodation and food on the average was good to excellent. The roads in some places were under construction, good grade or tarmac and...terrible!!

In a few short days this ended and it was back to work. Uganda was the next contract and it was nice to work again with my friends in Kampala and Jinja.

A lot of energy was put into an "Introduction to Instructional Skills Workshop" that resulted in a success rate above average here or at home. The road was not smooth as some of us had contracted the flu. However, we continued on. Yes, we did it with team work!!!!

Back in Dar es Salaam at the moment...will write more later. Will be leaving shortly back to Canada via Egypt and Europe and hope to spend Christmas with family and friends.

Cheers,
Len Arychuk, ITED Past President

ITED Membership Applications Invited From AECT Members And Nonmembers

Industrial Training and Education Division (ITED)

ITED is involved with designing, planning, and managing training programs; and works to promote maximum utilization of educational techniques and media that are effective in practical use.

Send this form (or a copy) to

Association for Educational Communications and Technology
1025 Vermont Avenue NW # 820
Washington, DC 20005

Telephone (202) 347-7834 for student dues rates and for copies of the ITED brochure.

Please check the appropriate boxes:

☐ I am already an AECT Member and wish to join ITED. Division fee: $10.00.

☐ I wish to join both AECT and ITED. Membership fee: $65.00.*

☐ My check for $_____, payable to AECT, is enclosed.

☐ Charge dues in the amount of $_____ to my credit card.
Circle: MasterCard VISA Diners Club Carte Blanche

Account # _____ Exp. Date _____

Signature _____ Tel. _____

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* Includes free ITED membership and subscription to *TechTrends.*

ITED NEWSLETTER
Dr. Andrew R. J. Yeaman
Yeaman & Associates
7152 West Eightyfourth Way #708
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FIRST CLASS MAIL

ITED NEWSLETTER

January 1995 *Industrial Training and Education Division, Association for Educational Communications and Technology*

ITED President-elect decides two priorities

by Andrew Yeaman

In serving as President-elect for the last two years my energy was directed inside of AECT and in planning the ITED sessions in Nashville and Anaheim, respectively. That function will be taken over this month by a new President-elect who will begin planning for Indianapolis, February 14-18, 1996.

Looking Outside of AECT

With the assistance of the new Executive Board, my goal as President is to look outside of AECT. The purpose is to let more people know who we are and what we do. Therefore, this newsletter is also going to Training Technical Group members of the Human Factors and Ergonomics Society. ITED members will be receiving a TTG newsletter in exchange. Not only is this an opportunity for both groups to gain new members but also holding a joint meeting is a possibility.

Problems Needing Human Solutions

My other goal is to emphasize how our work can be beneficial on the global scale. For example, a year ago Fred Knirk presented U.S. Navy sponsored research on What Works in Adult Instruction. Afterwards he sent me a copy of his excellent article from the *International Journal of Education Research.* Running 100 pages, it is a useable manual of research and practical findings.

Clearly, much is already known but, in the judgement of Rep. George E. Brown, Jr., chair of the House Committee on Science, Space, and Technology, "Our most serious problems are social problems for which there are no technical solutions, only human solutions." I strongly agree with this analysis.

Proposals for Indianapolis, 1996

In addition to the usual training research and application topics, proposals are solicited for presentations in Indianapolis on social responsibility. Reports on training and the diverse workforce, ecological issues, facilities design, learning station design, social and cultural issues, professional ethics, and similar aspects of training will be especially welcome.

Proposals for Indianapolis, 1996, will be due in the AECT national office by the beginning of April. Telephone (202) 347-7834 for the official Call for Proposals and further information. (ITED members will be mailed this by AECT.)

Does your work always need a computer? The best thing for you could be to turn it off

by Walter Simpson, Energy Officer, University at Buffalo, SUNY

Computers are the fastest growing electrical load in the business world. In the last ten years, computer-related energy consumption has increased five-fold. Computer use is now estimated to account for 5 percent of all commercial electrical consumption; if nothing is done to reverse this trend, the U.S. Environmental Protection Agency (EPA) warns that this figure could jump to 10 percent by the year 2000.

Each year more and more computers are purchased and put to use. But it's not just the number of computers which is driving energy consumption upward. The way that we use computers also adds to the increasing energy burden.

Most desktop personal computers are not being used the majority of the time they are running. As many as 30 to 40 percent of the personal computers nationwide are left on continuously.

Unfortunately your organization's computer use and energy consumption patterns probably mirror these national trends. At the University of Buffalo, alone, there are now over 8,000 computers. Personal computer (PC) operation alone may account for over $300,000 per year in University energy costs.

Continues on page 2

ITED Newsletter job aid

The purpose of the *ITED Newsletter* is to maintain communication about professional matters within the Industrial Training and Education Division.

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In this issue

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New members are invited to join
Election information and ballot 9
Only ITED members will receive ballots

Computer decisions affect your work and your future

Continued from page 1

by Walter Simpson

Given commitment to energy conservation and environmental responsibility, it's time we did something about this growing problem. Annual energy savings of $150,000 at UB may be possible.

How Much Energy Does Your Computer System Use?
A typical desktop PC system is comprised of the computer itself (the CPU or box), a monitor and printer. Your CPU may require anywhere from 50 watts to 150 watts of electric power. Add 75 to 100 watts for a 14 inch color monitor, proportionately more for larger monitors and less for monochrome.

The power requirements of conventional laser printers can be as much as 200 watts while printing and 150 watts just idling.

Thus, a typical PC system can use electricity at the rate of 300 watts, equivalent to the energy demand of three light bulbs each rated at 100 watts. At current electric prices, what does this cost? That all depends on how the computer system is operated.

First let's take the worst case: continuous operation. Assuming you operate a 300 watt PC system day and night everyday, annual electrical costs would be approximately $200.

In contrast, if you operate your system just during conventional business hours, say 40 hours per week, the cost would be about $50.This assumes no benefit or penalty to heating or cooling costs.

Considering the tremendous benefits of computer use, neither of the above cost figures may seem like much. But think what happens when these costs are multiplied by the number of computer users. The dollars add up quickly.

Why Conserve Energy?
Energy conservation has been called the least-cost energy strategy, and for good reason. At UB, energy conservation measures are saving in excess of $3 million in energy costs annually.

By 1996 these savings are expected to increase to over $5 million a year as additional campus conservation projects are completed.

But energy conservation does more than just save money. It reduces environmental and social costs as well.

Energy conservation mitigates the numerous adverse environmental and social impacts associated with energy production and consumption.

These include air pollution, acid rain and global warming, oil spills and water pollution, loss of wilderness areas, construction of new power plants, foreign energy dependence and the risk of international conflict over energy supplies.

Energy Efficient Computing
Some computer equipment is built with power management features, make sure they are enabled. But the most basic energy conservation strategy for any type of equipment is: Turn it off whenever possible. This checklist applies to computers as much as it does to lights:

- Turn off your computer and/or peripherals when they are not in use. A modest amount of turning computer equipment on and off will not harm the equipment.
- Don't run computers continuously (unless they are in use continuously). Also, if possible, don't run your computer all the hours you are in your office.
- Look for ways to reduce the amount of time your computer is on without adversely affecting productivity.

Continues on page 3

Turn computers off whenever possible

If we assume 8,300 computer systems at 300 watts each operating for an average of 40 hours a week for 51 weeks a year at $.75/KWH = $381,000 in electrical costs per year.

Some of this cost is offset by the fact that the heat generated by computer equipment helps heat buildings during the winter months. However, this heat means greater air conditioning costs in the summer.

Continued from page 2

Some Specific Suggestions

- Break the habit of turning on all your computer equipment as soon as you enter the office each day. Turn on each piece of equipment only when you intend to start using it.
- If practical, informally group your computer activities and try to do them during one or two parts of the day, leaving the computer off at other times.
- Don't turn on your printer unless you are ready to print. This especially applies to laser printers since they consume a considerable amount of electricity even while idling.
- If for some reason you must leave your computer (CPU) on while you are not actively working on it, turn off your monitor to reduce energy consumption. (If you utilize this energy conservation strategy, don't forget that your computer is on! Be sure to turn it off too when you can.)
- Turn off your entire computer system (CPU, monitor and printer) when you go to lunch or will be out of the office for a meeting or errand. Rebooting when you resume computer work usually just takes a minute. Rebooting may take a little longer if your computer runs through a diagnostics or virus checker program each time it boots. But even this delay may be acceptable, especially if you perform some other task while your computer is booting.
- Don't use a power strip master switch (which turns on all equipment at once) if you don't need all of your equipment all the time you are working on your computer. For example, you may not need your printer immediately—so why turn it on?
- Be an energy educator and gently remind your co-workers and colleagues to save energy by changing their computer habits. Circulate this article among the other members of your office or department. Gain the support of your supervisor and set up a brief meeting to discuss how to implement energy saving strategies.

While the energy saving suggestions listed here are appropriate for many PC users, some of the suggestions may be inappropriate for certain computer applications or work situations. When in doubt, discuss possible energy conservation measures with your colleagues, supervisor or computer lab director to determine which steps can be taken.

How Many Dollars of Computer Energy Consumption Can You Save?

These suggestions may make it possible for you to reduce your computer energy consumption by 50 percent or more—without losing any productivity or the other benefits of your computer system.

Most experts agree that turning PC equipment off at night or a few times a day will not appreciably affect its useful life.

You CAN Turn Your Computer Off!

It is commonly thought that a computer's life is shortened by turning it on and off. This belief has led some people to leave their computers on all the time. Others are reluctant to switch their computers on and off a few times during their work day, even though they are only using this equipment for a fraction of that time.

Most experts agree that turning PC equipment off at night or a few times a day will not appreciably affect its useful life. This is explained in the *Guide to Energy-Efficient Office Equipment* by the American Council for the Energy Efficient Economy (1993). This report was prepared under the sponsorship of the U.S. Department of Energy, U.S. Environmental Protection Agency, and the Office Technology Efficiency Consortium which is comprised of office equipment manufacturers, electric utilities, government agencies, researchers and public interest groups.

Electronic equipment life is a function of operating hours and heat. Both these factors are reduced when equipment is switched off. Concerning hard drive reliability, most modern drives are designed and tested to operate reliably for many thousands of hours including thousands of on/off cycles.

Thus, you CAN turn off your computer (and monitor and printer)! The inconvenience of waiting a minute or less for a computer to reboot or for a peripheral to come back on line is trivial compared to the energy savings which can be achieved by keeping computer equipment off when not in use.

IBM has a policy dating back to 1973 of encouraging employees to turn off idle machines. If all IBM employees in the U.S. turned off their workstations and lights for an extra hour a day, the company would save one million dollars per year.

About Screen Savers

Screen saver programs may save the phosphors in your monitor screen but they are not effective energy savers. A screen saver which displays moving images causes your monitor to consume almost as much electricity as it does when in active use. These screen saver programs also involve system interaction with your CPU which results in additional energy consumption. A blank screen saver is slightly better but even that only reduces monitor energy consumption by a few percent.

The best screen saver is also the best energy saver, i.e. turn off your monitor when you are not using it! This step also eliminates concern about exposure to any electromagnetic radiation emanating from the monitor.

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As computers with power management functions become more common (see section on Energy Star Computers), the use of screen saver programs with moving images may become even more problematic since these programs may prevent computers from entering a sleep mode and thus saving energy. At least one manufacturer is advertising a screen saver program compatible with the sleep mode of Energy Star computers.

Green Computing

You can take a giant step toward environmentally responsible or green computing by conserving energy with your computer. But green computing involves other important steps as well. These pertain to paper use, toner cartridges and purchasing decisions when considering new computer equipment.

Whatever Happened to the Paperless Office?! How to Reduce Paper Waste

Rather than creating a paperless office, computer use has vastly increased paper consumption and paper waste. Here are some suggestions for reducing that waste:

- Print as little as possible. Review and modify documents on the screen (but avoid eyestrain, too). Minimize the number of hard copies and paper drafts you make.
- Use E-mail whenever possible and avoid needless printing of E-mail messages.
- Send faxes directly from your computer to eliminate the need for hard copy. When you must fax using hard copies, save paper by not using a cover sheet.
- On larger documents, use smaller font sizes (but consider legibility) to save paper.
- If your printer prints a test page whenever it starts up, turn off this unnecessary action.
- Recycle waste paper.
- Before recycling paper which has print on only one side, set it aside for use in printing drafts.
- Buy and use recycled paper in your printers and copiers. Buy a small quantity first and check results. From an environmental point of view, the best recycled paper is 100 percent recycled with a high post consumer content and is not de-inked or is bleached without chlorine.
- When documents are copied, use double-sided copying whenever possible.
- When general information-type documents must be shared within an office, try circulating them instead of making an individual copy for each person.

Recycling Printer Toner Cartridges and Computer Diskettes

Many large organizations generate a few thousand spent laser printer toner cartridges a year. Instead of tossing these in the garbage can, they can be refilled and reused—thus saving resources and reducing pollution and solid waste.

Computer diskettes may be inexpensive but why keep buying more if you don't need to? Diskettes with outdated information on them can be reformatted and reused.

In the Market for a New Computer?

Environmentally responsible computer use implies not buying new equipment unless there is a demonstrated need. Thus, before buying new equipment, consider the following questions:

- Do you really need a new computer (or peripheral)?
- Can you meet your needs (with less expense and environmental damage) by upgrading your existing equipment?
- Can you find a solution in software rather than hardware? But if you do need new equipment, be efficient and buy green.

Energy Star Computers

Thanks to the EPA, it's easier than ever to buy a computer system that's easy on energy. The EPA has signed partnership agreements with industry-leading manufacturers to produce a new generation of energy efficient PCs utilizing some of the technology previously common only in battery-powered portable notebook computers. These new PCs are being sold under the EPA's Energy Star logo.

Energy Star computers, monitors and printers automatically power-down to a low power state when they are not being used. Efficiency gains are achieved without any sacrifice in computing performance—though there can be problems using Energy Star computers (with the sleep mode enabled) as file servers or in networks. This problem is being addressed by computer manufacturers and may be resolved in the near future. For the time being, buyers should protect themselves by either avoiding Energy Star computers for file servers/networking applications or insisting that manufacturers provide evidence of compatibility with these functions.

If you intend to buy an Energy Star computer for a networking application, be sure to check with the manufacturer to see if the computer you have in mind is network friendly and tested or certified for the particular kind of network you are using.

The EPA estimates that providing computers with a sleep mode reduces their energy use by 60 to 70 percent—and ultimately could save enough electricity each year to power Vermont, New Hampshire and Maine, cut electric bills by $2 billion and reduce carbon dioxide emissions by the equivalent of 5 million cars.

As a vote of confidence in the program, President Bill Clinton issued an Executive Order in April 1993 which requires that all federal agency purchases of microcomputers, monitors and printers must meet the Energy Star energy efficiency performance standards.

Recommendation: if you need a new computer, monitor or printer, insist on equipment bearing the Energy Star logo.

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Energy Star computer equipment is readily available and cost-competitive. When shopping for Energy Star computer equipment, look for low wattage models that have power management features which can stay operational irrespective of the software you are using. Manufacturers may achieve compliance with Energy Star standards in a variety of ways. Apparently, some solutions, i.e. those more dependent on software than involving modifications of computer hardware, may utilize power management features which can work only when the computer is using certain computer software or programs (but not all programs).

Also, when you receive your Energy Star computer check to make sure its power management features are enabled. If they are not, be sure to enable them! If you find it difficult to enable the power management features of your new Energy Star computer, monitor or printer, call the manufacturer and ask for help. Also, be sure to request that the manufacturer modify the procedure to make it more user friendly.

Other Purchasing Considerations

- Once they are available, consider buying Green Computers. Several computer equipment manufacturers are currently developing PCs which are not only highly energy efficient but are also manufactured in a resource efficient and less-polluting manner and are designed and built for eventual recycling.
- Higher prices for green computers may initially be a barrier to their purchase but over time their prices will come down and they will become cost competitive. Computers bearing the Energy Star logo are already cost-competitive.
- Buy a monitor only as large as you really need. While windowing system users may prefer larger monitors (which can better display more windows simultaneously), it's important to realize that a 17 inch monitor uses 40 percent more energy than a 14 inch monitor when each is in an active mode.
- Buy only as much monitor resolution as you need. Higher resolution monitors use more energy.
- Consider purchasing a monochrome monitor. They use about 50 percent less energy than a color monitor. Much computing work does not require a color display.
- Consider an ink jet printer. These printers are slower than laser printers but use 80 to 90 percent less energy.
- Consider printer sharing.
- Consider purchasing retrofit power management devices which power down computer equipment when not actively in use. These devices can be applied to CPUs, monitors and printers. They may be inappropriate for file server/networking applications. They are also not appropriate for a PC which is likely to be replaced soon (preferably with an Energy Star computer) or one which has relatively short operating hours because the user normally turns it off when it's not in use.
- For laser printers, specify low or no ozone emissions to maintain indoor air quality.
- Request green packaging from your computer vendor, i.e. packing material that is recycled, recyclable or biodegradable.

Protecting Yourself from Electromagnetic Pollution

Like a television, the electronics of a computer generate several types of radiation. No correlation exists between PC-generated electromagnetic fields and health problems but you can limit your exposure and conserve energy, too:

- Use a smaller monitor, if possible. Smaller monitors emit less radiation.
- Use a monochrome monitor. Emissions from black and white monitors are about 50 percent of those from color monitors.
- Purchase monitors that meet or exceed Sweden's MPR 2 standard for low emissions. Note that there is controversy over the effectiveness of screen radiation shields.
- Don't regularly sit to the side or the back where emissions are strongest.
- Keep your distance. Emissions two feet away are 75% less than they would be at one foot.
- Turn off your monitor when you can. When it's off, it's not emitting any radiation!

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Editor's Note

Reprinted with permission thanks to Walter Simpson, Energy Officer, University at Buffalo, State University of New York. The text is selected from the *UB Guide to Green Computing: How Your Choices Can Make a Difference.*

Copies of the *UB Guide* booklet may be obtained for a cost of $2.00 per copy by writing to Conserve UB, 120 John Beane Center, University at Buffalo, Buffalo, NY 14260.

ITED's 15 sessions in the AECT 1995 program

Room locations for the complete ITED list of sessions, including 11 more sessions where ITED is a secondary sponsor, are in the official conference schedule. Be certain to check if rooms are in a hotel or in the Anaheim Convention Center.

Wednesday, February 8

1:00 pm-2:00 pm

Adapting the Educational Technology Curriculum for Specialized Audiences

Sponsors: ITED, FETA, Curriculum Committee

Chair: Vicki S. Napper, Center for Persons with Disabilities

Faculty: Robin Taylor Roth, Bell Communications Research (Bellcore)

What challenges are involved in designing a 'service course' for professionals in other fields? After considering various constraints, a syllabus of essential elements and practical assessments is proposed. Examples are drawn from a doctoral level course for psychologists in an Organizational Psychology program.

4:00 pm-5:00 pm

Training and Self-Directed Learning

Sponsors: ITED, DID

Chair: Gloria Edwards, A & T State University, Greensboro, North Carolina

A Training Model to Increase Workplace Applications of New Skills

Faculty: William Milheim, Pennsylvania State University, Great Valley

The ultimate goal of any instructional program in industry is the application of the skills learned during various training sessions. This presentation will describe a model to increase the application of these newly learned skills through specific strategies that can be implemented before, during, and after training.

Self-Directed Learning Meets Technology: Integrating Computer-Based Instruction and Adult Learner Needs

Faculty: Mary Shoffner, Kent State University

When designing CBI for the adult learner, characteristics of the adult as an independent individual must be taken into account. Self-directed learning is not a single concept, but rather a conglomeration of several ideas regarding the instruction of adults and based primarily on the notion of the adults learner's inherent independence. This presentation will focus on ways to incorporate self-directed learning concepts into the design of CBI.

Thursday, February 9

7:30 am-8:45 am

ITED Kaffee Klatsch and Membership Meeting

Marriott Hotel: Desert Room

President: Joanne Willard, Creative Training Concepts

President-elect: Andrew Yeaman, Yeaman & Associates

Past President: Len Arychuk, LARK Consultants International, Inc.

8:45 am-9:45 am

QuickTute and ID Expert

Sponsors: ITED, DID, RTD, DISC

Chair: Martin Ryder, Storage Technology Corporation

Rapid Lesson Development with QuickTute: An Application that Marries CBI with Expectation

Faculty: Matthew Coombs, Utah State University

M. David Merrill, Utah State University

QuickTute, a go-between application that facilitates the mapping of resources, learning methods and presentation types into a rapid development tool, makes possible the development of instructional materials with little or no preparation.

ID Expert for Individualized Authoring and Learning

Faculty: Jean Pratt, Utah State University

The growing awareness of individual learning styles generates an increasing challenge to educators and trainers to tailor instruction to meet the learner's individual learning needs. Creation and modification of CBI is usually expensive and costly. ID Expert is a tool which enables users to create the instruction once and then modify it easily and quickly for novice or experienced learners or tailor it to specific, researched learning styles.

1:00 pm-2:00 pm

Intentional Learning Environments and Needs Assessment Naturally

Sponsors: ITED, DID

Chair: P. K. Jamison, Indiana University Dental School, Indianapolis

Application of an Intentional Learning Environment for Corporate Distance Education

Faculty: Edward Mann, Storage Technology Corporation

Martin Ryder, Storage Technology Corporation

The Intentional Learning Environment represents a strategy for answering the challenge of education for meeting corporate needs reflected in an ever changing technological environment and global marketplace. It permits distance learning by utilizing new technologies to educate about new technologies.

Needs Assessment Naturally: An Automated Tool for Targeting Customer Needs

Faculty: Allison Rossett, San Diego State University

Robert Hoffman, Escondido, CA

Most agree that needs assessment is critical but that is where the agreement stops. In this session we will explain and demonstrate Needs Assessment Naturally. NAna is a HyperCard job aid for planning needs assessment approaches, prompting needs assessment questions, educating clients, writing reports and looking smart on instructional design, technology and performance topics.

4:00 pm-5:00 pm

ITED Invited Keynote Speakers

(See next page.)

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4:00 pm-5:00 pm

INDUSTRIAL TRAINING AND EDUCATION DIVISION INVITED KEYNOTE SPEAKERS

Topic: Making the Most of Yourself and Other Media

Chair: Andrew Yeaman, Yeaman & Associates

Faculty: Carl Stafford, Purdue University

James Russell, Purdue University

The speakers provide valuable tips for planning, preparing, and making presentations. Their techniques cover planning a presentation, placement of equipment, dealing with anxiety, delivery stance, voice, and eye contact. Guidelines for visual design and utilization are demonstrated. This useful session is delivered by two of AECT's most popular and accomplished presenters.

Friday, February 10

8:30 am-9:30 am

The Role of Training in a Concurrent Development Environment

Sponsor: ITED

Chair: Jim Teslow, University of Colorado at Denver

Faculty: Marcelo Fernandes, University of Central Florida

Viola Lindsay, Grumman

The presenters will discuss: the fundamentals of concurrent engineering, the role of training in this concurrent development environment, and a case study of the process of developing pilot training devices integrated with aircraft development.

10:00 am-11:00 am

Using Constructivist Training Environments to Meet Long-Term Strategic Training Needs

Sponsors: ITED, ADCIS, CHANGE, DID

Chair: Alan Januszewski, SUNY Potsdam

Faculty: Joanna Dunlap, University of Colorado at Denver

Constructivist learning strategies can be used to facilitate training in domains requiring higher-level thinking skills (e.g., problem solving, decision making, and total quality management activities) to develop employees who can meet long-term strategic demands of a complex and ever-changing business environment.

3:00 pm-4:00 pm

Preparing Visual Presentation Media with Computers

Sponsors: ITED, MDPD, DID

Chair: Mary Lou Shippe, Computer Sciences Corporation

Designing and Delivering Presentations on the Desktop

Faculty: Julie Furst-Bowe, University of Wisconsin-Stout

Marian Smith, Chippewa Valley Technical College

This demonstration will guide participants through the steps in planning, developing, and delivering a presentation using presentation graphics software and computer projection equipment. Participants will see the presentations being created and presented and learn guidelines for effective screen design and techniques for effective delivery.

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ITED membership applications invited from AECT members and nonmembers

Industrial Training and Education Division (ITED)

ITED is involved with designing, planning, and managing training programs; and works to promote maximum utilization of educational techniques and media that are effective in practical use.

Send this form (or a copy) to Association for Educational Communications & Technology 1025 Vermont Avenue NW # 820, Washington, DC 20005 Telephone (202) 347-7834 to find out about dues rates for students, international, and corporate memberships, and for a copy of the ITED brochure.

Please check the appropriate boxes:

☐ I am already an AECT Member and wish to join ITED.
Division fee: $10.00.

☐ I wish to join both AECT and ITED.
Regular membership fee: $75.00.*
Comprehensive membership fee: $110.00.**

☐ My check for $_____, payable to AECT, is enclosed.

☐ Charge dues in the amount of $_____ to my credit card.

Circle: MasterCard VISA Diners Club Carte Blanche

Account # _____ Exp. Date _____

Signature _____ Tel. _____

Address _____

_____

* Includes free ITED membership and subscription to *TechTrends*.

** Also includes subscription to *Educational Technology Research & Development (ETR&D)*.

Continued from page 7

Effective Presentation: Using PowerPoint for Mac and Windows
Faculty: Reza Azarmsa, California State University, Bakersfield

Whether you are making a formal presentation to a large audience using 35mm slides or a presentation in a classroom using overhead transparencies, PowerPoint has the tools and capabilities you need to create a truly effective presentation.

4:30 pm-5:30 pm
Knowledge-Based Electronic Performance Support Systems: KEPSS
Sponsor: ITED
Chair: Peter MacDonald, Eli Lilly and Company
Faculty: James Li, LeadingWay Corporation

In today's high-tech world professionals are looking toward technology and knowledge-bases to provide ultimate performance support solutions. This presentation will discuss ways to combine both in order to increase productivity, decrease learning time and access information when and where needed and to integrate these activities into one complete system.

Saturday, February 11

8:00 am-9:00 am
Distance Education: Public and Private Sector Models with Research on Theory and Cognitive Strategies
Sponsors: ITED, HeSCA, DOT
Faculty: Oscar Britton, Ford Motor Company
Patricia Watkins, Columbia University

Distance education designs will be presented for both public and private sectors of interest. The presenters will define various models and explain research and cognitive strategies for distance learning.

8:00 am-9:00 am
Training Teachers to Design Instruction
Sponsors: ITED, DID
Chair: Judith Duffield, University of Colorado at Denver
Teaching Instructional Design: Integration of Theory and Practice
Faculty: Terry Olivier, Philadelphia College of Textiles and Science
Jeanne Buckley, Delaware County Community College

Graduate education programs are faced with the challenge of preparing teachers for an increasingly complex instructional environment. Multimedia instruction can empower teachers by providing learning environments that are more individualized and that can be monitored and adjusted to meet learner needs. This presentation describes a new model for teaching instructional design via the integration of theory and practice.

Computer Technology in the Classroom: Training for Increased Usability
Faculty: Gloria Edwards, A & T State University, Greensboro, North Carolina
Dennis Selby, A & T State University, Greensboro, North Carolina

This presentation will expose advocates of computer technology in the classroom to a new and better method of training teachers and educators to use technology to its potential. The method is unique in that it focuses on curricula and five abilities: knowledge-ability, learn-ability, ease-ability, use-ability, and student-ability.

12 noon-1:00 pm
Competencies Needed by Industrial and Business Trainers as Reported by Training Personnel in the United States, Taiwan, R. O. C., and Selected Countries in Europe
Sponsors: ITED, INTL
Chair: Robin Taylor Roth, Bell Communications Research (Bellcore)
Faculty: John Morlan, San Jose State University
Richard Cornell, University of Central Florida, Orlando
Mei-Yan Lu, San Jose State University
Bosco Wen-Ruey Lee, National Taiwan University
Lucia Shih-Ling Lin, Fu-Jen Catholic University
Rune Pettersson, ELLEMTEL, Sweden

Findings of surveys about instructional competencies for trainers in industry, business, and government agencies will be presented. The countries participating are the United States, Taiwan, R. O. C., and selected European nations.

1:30 pm-2:30 pm
Performance Technology: An Evolving Case Study in Business
Sponsors: ITED, DID
Chair: Kenneth Pisel, United States Navy
Faculty: Patricia Todd, Eli Lilly and Company
Peter MacDonald, Eli Lilly and Company
Denise Wakefield, Eli Lilly and Company

The role of the instructional technologist is changing in business. How have instructional technologists shifted from the tradition of providing training to a new paradigm of performance technology? Through a case study we will examine the evolving role of instructional technologists and the factors that facilitated and hindered the movement.

3:00 pm-4:00 pm
USENET: A Constructivist Learning Environment
Sponsor: ITED
Chair: Shelia Rumbaugh, Columbia Public Schools, Missouri
Faculty: Martin Ryder, Storage Technology Corporation
Edward Mann, Storage Technology Corporation

Where job-specific training breaks down in trajectories of change, practitioner communities are emerging from network access. Informal USENET environments take on distinctive constructivist attributes providing effective support for technical knowledge acquisition.

Quotable Quote
"You can't argue with a 486 running 20 MHz."
(Overheard in an elevator.)

Candidates' qualifications for election to ITED offices

President-Elect

Mary Lou Shippe
Multimedia Courseware Specialist with Computer Sciences Corporation.
AECT member since 1983.
ITED member.
Masters degree in Public Administration from the University of Oklahoma.
Additional graduate level coursework.
NRI certification.
Experienced Delegate to Assembly and Division Council.
AECT Assembly Chair.
ITED session chair and presenter.
Experienced in AECT conference program planning on behalf of the International Division.

Two Directors-at-Large

Alan Januszewski
Assistant Professor at SUNY Potsdam.
AECT member since 1987.
ITED member.
Ph.D. Syracuse University.
Organized ITED Presidential Session, 1994.
ITED session chair and presenter.
Reviewer for presentation proposals.

Vicki Napper
Instructional Designer at the Center for Persons with Disabilities.
AECT member since 1989.
ITED member.
Masters degree in Instructional Technology from Utah State University.
Writing dissertation: doctoral committee chaired by Nick Eastmond.
ITED session chair and presenter.
Reviewer for presentation proposals.

Secretary

Peter MacDonald
Performance Technologist with Eli Lilly and Company.
AECT member since 1988.
ITED member.
Ed.D. Syracuse University.
ITED session chair and presenter.

ITED ELECTION BALLOT

Complete the ballot below, indicating your choices for the various ITED Executive offices.

Please return the ballot to arrive no later than Saturday, February 5, 1995.

ITED members may vote by either mailing this ballot to:

Dr. Andrew R. J. Yeaman
9016 Vance St. #305
Westminster, CO 80021-6496

or FAX this ballot to: (303) 650-1700

or by sending E-mail to
Internet ayeaman@carbon.cudenver.edu

President-Elect (vote for one)

[ ] Mary Lou Shippe

[ ] Write-in:_____

Two Directors-at-Large (vote for two)

[ ] Alan Januszewski

[ ] Vicki Napper

[ ] Write-in:_____

[ ] Write-in:_____

Secretary (vote for one)

[ ] Peter MacDonald

[ ] Write-in:_____

Newsletter Editor (vote for one)

[ ] Write-in:_____

AECT Directors add a new ethics principle

A new principle has been added to the Code of Ethics. Although there have been small amendments to the wording of principles over time, this is the first new principle created in many years.

It was adopted by the AECT Board of Directors upon the recommendation of Paul Welliver, Chair of the Professional Ethics Committee. Paul Welliver is Professor Emeritus at the Pennsylvania State University and served as AECT President 1983-1984.

The new principle is part of Section I - Commitment to the Individual:

In fulfilling obligations to the individual, the members:

9. Shall refrain from any behavior that would be judged to be discriminatory, harassing, insensitive, or offensive and, thus, is in conflict with valuing and promoting each individual's integrity, rights and opportunity within a diverse profession and society.

In recent years President George Bush gave an award recognizing the Association's active concern with professional ethics and over 20 case study scenarios have been printed in *Tech Trends* to stimulate discussion and awareness.

The Professional Ethics Committe has this charge:

- Apply the AECT ethical standards to any situation brought to the attention of the committee.
- The rapid acceleration of technological advancement brings with it dramatic issues related to professional, ethical behavior. The AECT Professional Ethics Committe is further charged to identify these issues, use this information to update the ethical code of the Association, disseminate information to the profession about this updated code and assist members in interpreting the code as it relates to their professional behavior.
- In addition, the committee reviews the AECT Code of Ethics on a regular basis to determine if the code is in need of revision and recommends any revisions to the AECT Board.

ITED NEWSLETTER
Dr. Andrew R. J. Yeaman
9016 Vance St. #305
Westminster, CO 80021-6496

FIRST CLASS MAIL

ITED NEWSLETTER

January 1997 *Industrial Training and Education Division, Association for Educational Communications and Technology*

Members celebrate ITED's 25 years of planning and success

ITED was formed by AECT members in 1971 as the Industrial Training and Education Division. This Division has been active and visible in planning the AECT National Convention for 25 years.

At the 1997 convention in Albuquerque ITED will sponsor 20 presentations. About half of these will be an hour in length in order to support the quality delivery of professional knowledge. The Divison is cosponsoring many other sessions. See the program beginning on page 5 inside this newsletter.

25 years of ITED

ITED members are invited to assist in celebrating this first quarter of a century of success. On Thursday, February 13, the ITED 25TH ANNIVERSARY MEMBERSHIP MEETING AND BREAKFAST will be held from 7:00 am to 8:00 am in the Hyatt Hotel.

This landmark event will be hosted by the ITED President, Andrew Yeaman (Westminster, Colorado) and the ITED President-elect, Mary Lou Shippe (Computer Sciences Corporation).

Keynote session scheduled

On Thursday afternoon at 1:30 the ITED keynote speaker will be Vicki Napper (Instruction By Design) who is a Director on the ITED Board. The topic will be: *Can you Improve Your EQ? How to Design Work and Learning Stations to Improve Health.*

This interactive session provides information on setting up computer workstations to help reduce injury to employees and students. An 'ergonomic quotient' quiz will be given on ergonomic design. There will be a discussion about establishing computer labs or workstations and stress management techniques which reduce learners' and workers' stress.

More computer use may impair your eye health and vision

Reprinted by permission of the American Optometric Association

The increased use of computers in the workplace has brought about the development of a number of health concerns. Many individuals who work at a computer video display terminal (VDT) report a high level of job-related complaints and symptoms, including ocular discomfort, muscular strain and stress.

The level of discomfort appears to increase with the amount of VDT use. Visual discomfort and related symptoms occurring in VDT workers must be recognized as a growing health problem.

Many individuals who work at a VDT experience eye-related discomfort and/or visual problems. However, based on current evidence it is unlikely that the use of VDTs causes permanent changes or damage to the eyes or visual system. This report will review the factors relating to eye and vision problems associated with VDT work and provide recommendations for preventing or reducing their development.

Continues on page 2

ITED's official definition

A new ITED Purpose has been created by the ITED Board. It is a result of the recent interest in planning. This statement was announced to members in Indianapolis and may be developed further in the future.

ITED is involved with:

- **Designing, planning, evaluating, and managing training and performance programs.**
- **Promoting appropriate uses of educational techniques and media.**

This revised statement of purpose was adopted by the ITED Board, November 1, 1995. All other versions of ITED's description are obsolete.

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ITED membership application form 10
New members invited to join

Computer use decisions can lead to visual problems

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Eye and vision related complaints

Vision related symptoms or complaints among VDT workers are common. Studies have found that the majority of VDT workers experience some eye or vision symptoms. However, it is unclear whether these problems occur to a greater extent in VDT workers than in workers in other highly visually demanding occupations. A national survey of doctors of optometry found that more than 14% of their patients present with eye or vision-related symptoms resulting from VDT work. The most common symptoms are eyestrain, headaches, blurred vision and dry or irritated eyes.

The extent to which an individual may experience symptoms is largely dependent upon his/her visual abilities in relation to the visual demands of the task being performed. These vision problems are not new or unique to computer use. Many individuals in other highly visually demanding occupations will experience similar vision related problems. However, the unique characteristics and high visual demands of VDT work make many individuals susceptible to the development of eye and vision-related symptoms. Uncorrected vision conditions, poor VDT design and workplace ergonomics and a highly demanding visual task can all contribute to the development of visual symptoms and complaints.

Vision problems experienced by VDT operators are generally only temporary and will decline after stopping VDT work at the end of the day. However, some workers may experience continued impaired or reduced visual abilities, such as blurred distance vision, even after work. If nothing is done to address the cause of the problems, they will continue to recur and perhaps worsen with future VDT use.

Work that is visually and physically fatiguing may result in lowered productivity, increased error rate and reduced job satisfaction. Therefore, steps should be taken to reduce the potential for development of stress and related ocular and physical discomfort in the workplace.

Visual demands of VDT work

Viewing a video display terminal screen is different that viewing a typewritten or printed page. Often the letters on a VDT screen are not as precise or sharply defined, the level of contrast of the letters to the background is reduced and the presence of glare and reflections on the screen may make viewing more difficult.

Viewing distances and angles used for VDT work are also often different from those commonly used for other reading or writing tasks. As a result, the eye focusing and eye movement requirements for VDT work can place additional demands on the visual system. Older workers particularly may find adjusting to these working requirements difficult.

Eyeglasses or contact lenses prescribed for general use may not be adequate for VDT work. Specific occupational lenses prescribed to meet the unique demands of VDT work may be needed. Special lens designs, lens powers or lens tints or coatings may help to maximize visual abilities and comfort. VDT workers who receive eye examinations and occupational eyewear have reported improved comfort and resolution of their symptoms. The quality and efficiency of their work have also been improved.

Some VDT workers may experience problems with eye focusing or eye coordination that cannot be adequately corrected with eyeglasses or contact lenses. A program of optometric vision therapy designed to treat specific binocular vision dysfunctions may be needed. A preventive approach to reducing visual stress form VDT work incorporates the use of rest or alternate task breaks throughout the workday. Many VDT tasks are repetitive and can become stressful both mentally and physically after an extended period of continuous work.

Occasional rest or alternate task breaks are helpful to combat fatigue and stress. They provide an opportunity to incorporate different and less visually demanding tasks into the work regimen. Specific rest or task breaks should be based on the individual visual needs of the VDT operator.

Uncorrected vision problems

The presence of even minor vision problems can often significantly affect worker comfort and performance at a VDT. Uncorrected or undercorrected farsightedness, astigmatism, presbyopia and binocular vision (eye coordination and eye focusing) problems can be major contributing factors to VDT related eye stress.

A high percentage of VDT operators has been found to have uncorrected or undercorrected vision problems that may affect their visual performance and comfort. Although some of these problems may not result in symptoms under less visually demanding conditions, the high demands of VDT work cause them to become manifest. All VDT workers should have a comprehensive eye examination prior to or soon after beginning VDT work and periodically thereafter. The examination should include careful analysis of the functioning of the eyes at intermediate and near working distances.

Radiation emitted by VDTs

Like most electrical appliances, VDTs emit both ionizing and non-ionizing radiation. These include visible light, ultraviolet, infrared, x-ray and radio frequency emissions. However, VDT emissions are often so low as to be unmeasurable or are found to be

Continues on page 3

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significantly below recommended safety levels. Numerous studies have been conducted to determine what effect, if any, radiation levels emitted from VDTs may have on worker's health. Repeated studies to date have failed to find any direct link between VDT use and radiation related general or eye health problems. There is no evidence that radiation from VDTs contributes to the development of cataracts.

While not technically a form of radiation, most VDTs build up an electrostatic charge in the vicinity of the screen surface. Static charges can cause the attraction and accumulation of dust and other airborne particles on the face of the VDT screen. Although there is no conclusive evidence, it has been suggested that these charges may be related to the development of skin rash or eye irritation in some very sensitive people. This problem can usually be managed by cleaning the VDT screen regularly.

Workplace lighting

One of the most significant environmental factors affecting VDT work is lighting. Surveys indicate that many VDT users report problems with general workplace lighting, glare and images reflected on the VDT screen. Many problems related to lighting may be caused by the introduction of VDTs into offices where the lighting was originally designed for traditional desk top work. The lighting is designed on the assumption that workers will perform tasks requiring their lines of sight to be depressed 20 degrees to 40 degrees from the horizontal. In many situations, however, VDTs are placed so that viewing occurs at or even above horizontal eye level.

Bright lights in the peripheral field of view may cause discomfort glare. Windows, overhead fluorescent lights and desk lamps often contribute to this problem. These bright light sources can be controlled with proper workstation and/or room design and arrangement. An acceptable lighting level may require a compromise between that amount of light needed to enhance VDT screen visibility and reduce reflections and glare and that needed to perform other office reading and work tasks. Older individuals will generally require more light than younger individuals to perform the same tasks comfortably. Workers over 50 years of age require twice the light levels of young adults for comfortable work.

Many individuals who work at a computer video display terminal (VDT) report a high level of job-related complaints and symptoms, including ocular discomfort, muscular strain and stress.

The brightness of the screen and the surrounding room should be balanced. For dim or dark background screens this often requires using lower light levels.than are used for other types of office tasks. However, lighting requirements will vary with the task. More lighting may be needed when other source documents are also viewed. In general, lighting levels between 200 and 700 lux (approximately 20 to 70 foot candles) measured at the workstation are recommended. More than 500 lux will usually be needed only to read poor quality documents. This additional lighting may be accomplished through the use of specific task lighting.

Light reflected from the VDT screen can produce a veil of light over portions of the screen reducing contrast and visibility of the display characters. It can also form disturbing reflections of nearby or distant objects. Filters can be placed over the VDT screen to reduce glare and reflections. However, filters should be considered only as a supplement, not a replacement, for control of light and reflections through proper lighting design and VDT placement.

Windows are a major source of glare in many offices. VDT operators should avoid facing an unshaded window since the difference in brightness between the VDT screen and the area behind it may be extremely stressful and uncomfortable. Operators should also not sit with their back to an unshaded window since they will cast annoying shadows on their VDT screen. Adjustable shades, curtains or blinds should be used to effectively control light levels throughout the day.

VDT and workstation design and placement

Proper ergonomic design and adjustment of the VDT and the work environment can increase productivity and worker comfort by decreasing the visual demands of the task. Overall display legibility is an important factor in visual performance. Screen brightness and contrast should be adjusted to provide balance with room lighting and maximum visibility. Lowering screen brightness will generally reduce problems related to image stability or character flicker. Regular cleaning of the VDT screen according to manufacturers' directions will remove dust and dirt that may also interfere with screen visibility.

The color of VDT screen characters may also affect their ease of visibility. The color of the characters can affect how the eyes focus on the VDT screen and may bring about the development of harmless, but annoying, after-images for some individuals. Monochrome, or single color, displays often provide more

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legible images for word processing or data entry-acquisition tasks. Negative contrast VDT displays (dark letters on a light background) generally provide a more legible image than positive contrast displays (light letters on a dark background). Either black characters on a white background or white characters on a black background have been found to be more visible than green, yellow-orange, blue or red characters.

Adjustment of the workstation to meet the individual needs of the operator is also important for overall performance and comfort. Inadequate viewing distances and angles can impose the necessity for awkward postures when viewing a VDT. The direction of gaze can also affect the eyes' focusing ability. Accommodative amplitude has been shown to be reduced with elevation of the eyes. The higher gaze angles at many VDT workstations result in viewing conditions for which the amplitude of accommodation is reduced thus placing greater strain on the eyes' focusing mechanism. The eyes and head should be in a slightly downward gaze when viewing a VDT screen. As a result, the top of the screen should be slightly below the horizontal eye level of the operator with no portion of the screen at an angle greater the 40 degrees below the horizontal.

Musculoskeletal problems related to head and eye postures when working at a VDT are common and can often be alleviated through proper workstation adjustment. VDT workstation furniture should be adjustable and designed so that operators can easily change postures. VDTs that have detachable keyboards, screens that can be tilted to a comfortable viewing angle and movable document holders allow operators to arrange the work area to their particular needs. Older workers, because of visual changes such as presbyopia and increased susceptibility to glare, may be especially vulnerable to problems of poor workstation design.

Some office environments have been implicated in causing eye irritation because of their dry atmosphere. The airtight environment also traps vapors and particulate matter from office furnishings. This can be a particular problem for contact lens wearers. These problems can be further exacerbated by decreased blinking caused by staring at a VDT.

The use of VDTs is associated with a decreased frequency of blinking and an increased rate of tear evaporation, each of which contributes to dry eyes. The use of artificial tears can provide relief from dry eye symptoms in some cases. In addition, the width of the palpebral fissure, and hence the exposed ocular surface area, can be decreased by placing the VDT at a lower height.

Managing VDT related eye health and vision problems

Video display terminals are used in a broad range of occupations and their use is increasing. Many VDT operators experience various eye and vision related symptoms and ocular discomfort. However, many of the potential eye and/or vision problems relating to VDT use can be reduced or eliminated by appropriate adjustment and placement of the VDT, proper workplace design and lighting control, good preventive vision care habits and regular professional eye care.

Through research and clinical practice, optometry provides unique and effective means to address the vision problems and occupational needs of VDT users. VDT workers and others concerned with their eye health and vision should seek the advice and assistance of doctors of optometry in their community regarding the prevention, diagnosis, treatment and/or management of VDT related problems in the workplace.

The American Optometric Association will continue to develop and distribute information to improve public understanding of the importance of good vision and ergonomics related to the unique demands of VDT use and will monitor and offer its guidance in the development of policy and/or legislation related to the regulation and use of VDTs.

Editor's note

I hope the information in this article will be helpful to you in your work with trainees and other learners. Although I have been researching the human aspects of computer instruction since the early 1980s, in my opinion there seems to be only small improvements so far and the challenge for readers is in application.

The original title of the report is *The Effects of Video Display Terminal Use on Eye Health and Vision* and it is reprinted here by permission of the American Optometric Association. The many references to scientific research and the technical literature have been omitted due to editorial considerations. Readers may request a copy of the complete document by writing to:
Clinical Care Center
American Optometric Association
243 N. Lindbergh Blvd.
St. Louis, MO 63141

Donation received to support interns

Stan Zenor, AECT Executive Director, announced last month that a cash donation had been received in Washington, DC to support ITED interns.

The anonymous donor generously gave $900.00 which will provide three ITED interns with $300.00 awards.

Students belonging to ITED may apply to be interns at the 1998, 1999, and 2000 conventions. The ITED internships are specifically for AECT student members preparing for careers in business or industry. Internship application forms for the next year may be obtained each spring from the AECT national office.

ITED offers many professional sessions in Albuquerque, NM

Call (202) 347-7834 to ask about about registration and hotels.

Check the official program when you arrive for the room locations. Use the ITED table in the Convention Center as a place to meet your colleagues.

Tuesday, February 11

Workshop
8:00 am-5:00 pm
Distance Education: A Practitioner's Guide
Sponsors: DOT, ITED
Faculty: Landra Rezabek, University of Wyoming
Leslie Moller, Pennsylvania State University-Great Valley

This interactive workshop will enable participants to identify when distance education is a viable option, identify strengths and limitations of distance education strategies and delivery systems, and identify key points in planning and implementing distance education.

Wednesday, February 12

Workshop
8:00 am-12:00 noon
Powerful Presentations: Using PowerPoint for Mac and Windows
Sponsors: ITED, MDPD
Faculty: Reza Azarmsa, Humboldt University

Whether you are making a formal presentation to a large audience or a classroom using overhead transparencies or 35mm slides or a more intimate presentation in a small conference room, PowerPoint has the tools and capabilities you need to create a truly effective presentation.

12:30 pm-1:30 pm
Increasing the Value of People: Systemic Career Development
Sponsors: ITED, NARMC, DEMM, CHANGE
Chair: Robin Taylor Roth, Bellcore
Faculty: Kathleen Groschner, EDS
Joanne Scherf, EDS

The goal of systemic career development in a corporate setting is to provide employees with the ability to identify and gain skills that enhance their value to the organization and enable career growth. This session will demonstrate an integrated set of electronic and paper based tools that accomplish this goal.

2:00 pm-3:00 pm
Advanced Distributed Simulations: **Collaborative Distance Learning in Authentic Environments**
Sponsors: ITED, DOT
Chair: Ken Pisel, Armed Forces Staff College
Faculty: James Ellsworth, United States Army

Discusses the advanced distributed simulations in use at a major US Army training center. Applications are selected to illustrate how these systems can facilitate authentic learning activities. Emphasis is placed on the ability of such environments to reinforce interactions among students in contexts similar to those they will encounter after graduation. The intent is to provide generalizable models for action that can be used to replicate these instructional benefits elsewhere.

3:30 pm-4:30 pm
Training: Performance Technology and Adult Learning Theories
Sponsors: ITED, DID, MDPD
Chair: Rionda Osman-Jouchoux, University of Colorado at Denver
1 Generalizing Performance Technology: A Success Story
Faculty: Barry Williams, Pennsylvania State University-Harrisburg
Vicki Williams, Pennsylvania State University-University Park
Frank Dwyer, Pennsylvania State University-University Park

Human Performance Technology can be used to examine other factors within the organization that impact upon performance. This presentation describes a complex performance situation, functioning in a complex organizational setting, and how operations and sales were turned around by an HPT analysis and training approach.

2 Integrating Adult Learning Theories into a Hypermedia Course for Trainers
Faculty: Doris Lee, Pennsylvania State University-Great Valley

This presentation will cover the rationale and purpose of designing a hypermedia course to professional trainers by applying adult learning theories. The presentation content will include information regarding how the professional trainers learned hypermedia by taking this course, their concerns, learning attitude and results, and suggestions for improving the course.

Thursday, February 13

7:00 am-8:00 am

ITED 25TH ANNIVERSARY MEMBERSHIP MEETING AND BREAKFAST

President: Andrew Yeaman, Westminster, Colorado
President-elect: Mary Lou Shippe, Computer Sciences Corporation

8:00 am-9:00 am
Synergistic Combinations of Information and Communications Technologies for Engineering
Sponsors: ITED, DISC
Chair: Edward Mann, Storage Technology
Faculty: Francis Harvey, Lehigh University
Sumei Wang, Lehigh University

This paper describes the design, implementation, and evaluation of synergistic combinations of information and communications technologies, specifically, a stand alone multimedia database interlinked with and accessed through the World Wide Web. The approach used takes optimal advantage of the power and capabilities of both technologies, and provides a model for their efficient, cost-effective use.

1:30 pm-2:45 pm

KEYNOTE SPEAKER

VICKI NAPPER

Can You Improve Your EQ? How to Design Work and Learning Stations to Improve Health
Sponsors: ITED, FETA
Chair: Andrew Yeaman

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4:45 pm-5:45 pm
Adoption & Acceptance of Evaluation within Training Functions: Consensus-Based Model & Case Study
Sponsors: ITED, DID
Chair: Janet Bloom, Wizards of the Coast
Faculty: Peter MacDonald, Lilly Corporate Center
James Cox, Information Mapping
Patricia Todd, Eli Lilly & Company

The overall goal of this presentation is twofold. First, we will describe a change model that can be applied to incorporating evaluation into training entities. Second, we will illustrate the model through a case study of the introduction and adoption of a training evaluation system within a large organization with a large number of decentralized training units. We will also explore through group discussion the degree of generalizability of the model to other organizations.

Friday, February 14

8:30 am-9:30 am
Evaluation: Empirical Instructional Design and Formatively Evaluated Instructional Systems
Sponsors: ITED, DID, MDPD
Chair: Andrew Yeaman, Westminster, Colorado

1 Instructional Design Product Success Indicators: An Empirical Basis
Faculty: Aimee Klimczak, University of Missouri
John Wedman, University of Missouri

This presentation describes the first in a series of studies on ID project evaluation. The major contribution of this study is the random ordering of an empirically-based set of success indicators which provides an evaluation framework derived from and sensitive to the values of various stakeholders in the ID process.

2 An Outcomes-Based Taxonomy for the Design, Research, and Evaluation of Instructional Systems
Faculty: Martin Tessmer, University of South Alabama
David Jonassen, Pennsylvania State University

The purpose of this investigation was to develop a method for formatively evaluating and generating research questions about instructional systems. We produced a new, expanded taxonomy of learning outcomes including structural knowledge, situated problem solving, ampliation, affect, and conation. We also provide a list of required and recommended instructional strategies for each outcome.

10:00 am-11:00 am
Measuring Competencies for the 21st Century
Sponsors: ITED, DLPE
Chair: Barry Williams, Pennsylvania State University-Harrisburg
Faculty: Ron Goodnight, Purdue University

Competency assessment for the 21st Century is critical for survival. Learn how one company measured all employees' knowledge and skill levels on critical job factors. These measures were compared to benchmark standards and the resultant gap analysis revealed training, development and educational need areas.

1:00 pm-2:00 pm
Histories of Educational Technology: Considerations and Techniques
Sponsors: ITED, RTD
Chair: Tom Schwen, Indiana University

This session will provide examples of how histories of educational technology can be conceived and written as doctoral dissertations, edited book chapters, or as a contribution to a larger document or text. Each of the short presentations will explore theoretical assumptions and problems that accompany historical scholarship and provide strategies for overcoming them.

1 Considerations for Intellectual Histories in Educational Communications and Technology
Faculty: Alan Januszewski, State University of New York-Potsdam

2 The Role of Women in the Leadership of the Audiovisual Movement 1920-1957
Faculty: Rebecca Butler, East Tennessee State University

3 The Cyborg Discourse
Faculty: Andrew Yeaman, Westminster, Colorado

4 Explaining the Intentional Explanation in Historical Study
Faculty: J. Randall Koetting, University of Nevada-Reno

3:45 pm-4:45 pm
Transcultural Customization of Training Programs in Global Organizations
Sponsors: ITED, INTL
Chair: Rebecca Rinehart Cohen, Federal Express
Faculty: Hyunjoo Kim, Florida State University

The international corporations are now faced with a new challenge: how to train and educate their employees who have different cultural backgrounds. This presentation will address transcultural customization issues in business and industry training to develop participants' awareness on the issue, and will provide tips for systematic transcultural customization process.

Saturday, February 15

8:00 am-9:00 am
Corporate Training: Desktop Videoconferencing and ToolBook
Sponsors: ITED, DOT, MDPD, NARMC
Chair: Ellen Wagner, Informania

1 Instructional Utilization of Desktop Videoconferencing
Faculty: William D. Milheim, Pennsylvania State University-Great Valley

With the widespread adoption of the Internet and other telecommunications options, desktop videoconferencing has become a viable alternative for teachers, trainers, and students in a variety of instructional settings. This presentation will describe the basic elements of this relatively new technology and the potential instructional applications of this powerful tool.

2 Implementing Computer-Based Training by Using ToolBook: Some Examples
Faculty: Doris Lee, Pennsylvania State University-Great Valley

This presentation will cover how six professional trainers used ToolBook to implement a computer-based training (CBT) program from the procedures of planning, flowcharting, storyboarding and authoring. The presenter will demonstrate the six finished CBT projects and discuss issues related to the use of ToolBook in CBT design.

9:30 am-10:30 am
Instructional Design Toward Multimedia Development
Sponsors: ITED, DISC
Chair: David Shutkin, Ohio State University

1 Using a Layers of Necessity Model for Multimedia Development: A Case Study
Faculty: Dhanni Sukhai, University of South Alabama
Martin Tessmer, University of South Alabama

This presentation describes the successful application of Tessmer and Wedman's layers of necessity Model.

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2 Get in Gear!: A Multimedia Instructional Program for Computer Numerical Control Operators
Faculty: Gary Conway Powell, Wayne State University

Get in Gear! is an interactive multimedia instructional program (Windows) that teaches many of the basic skills required to operate a Computer Numerical Control machine. It was developed as part of a Federally funded workplace literacy program. The learning audience are line workers at a Chrysler plant in Detroit. The program will be demonstrated as an example of innovative multimedia design.

1:00 pm-2:00 pm
Clients are from Mars, Consultants are from Venus: Multiple Perspectives about HPT
Sponsors: ITED, DID
Chair: Vicki Williams, Pennsylvania State University-University Park
Faculty: Debra Haney, Indiana University
Patricia Todd, Eli Lilly and Company
Peter MacDonald, Eli Lilly and Company
Robin Wachter, Eli Lilly and Company

An ongoing problem for human performance technologists is the difference in perception and expectation between HPT professionals and their clients. This problem is examined in terms of the consultants' scope of action, requisite skills, and the consulting process itself. Strategies for circumventing these problems, along with appropriate applications, will be given.

2:30 pm-3:30 pm
Training: From the Present to the Future
Sponsors: ITED, INTNL, DID, MDPD
Chair: Hank Bromley, State University of New York-Buffalo
1 Life in the Fast Lane: Training Challenges, Innovative Solutions, and I. T. Competencies in the Silicon Valley
Faculty: Al Lowe, Sun Microsystems
Mei-Yan Lu, San Jose State University

The ultimate goal of this study is to build an optimal training model for the information society. It will be achieved by conducting a combination of survey focal groups, and in-depth in-person interviews of local AECT, ISPI, ASTD, IICS Bay Area Chapters, and 15 high tech firms. These companies are: Acer, Adobe, AMD, Amdahl, Apple, H.P., IBM, Intel, Lockheed, MacroMedia, Motorola, National Semiconductor, Silicon Graphics, Sun Microsystems, and Tandem.

2 Non Traditional Roles for Traditionally Trained Instructional Designers
Faculty: Thomas W. Jury, NCR Corporation
Alma L. Rameriz, Indiana University

This presentation discusses some of the skills being emphasized by the leading instructional design university departments and describes how instructional designers are applying those skills in one company in areas other than human resources and traditional training departments. A case study of one intern's experiences with a product development group will be presented.

ITED plans to continue its 25 years of excellence in representing members' needs

by Andrew Yeaman, ITED President

This ITED report emphasizes the ITED Board's ongoing activities and planning. It discusses the identity of the Division and how our volunteer work is meaningful and worthwhile to our profession. Specific strategies and tactics are listed. Challenges are suggested as considerations for the future of AECT. Some historical information about ITED is provided in conclusion.

Who and what is ITED?
The Industrial Training and Education Division (ITED) is involved with:

- Designing, planning, evaluating, and managing training and performance programs.
- Promoting appropriate uses of educational techniques and media.

This revised statement of purpose was adopted by the ITED Board, November 1, 1995. Note that the ITED Board worked to avoid the usual run-on sentences and to give a current explanation of our members' work activities and our members' professional interests.

Earlier versions of this statement are defunct. The current version authorized by the ITED Board can be identified at a glance. It uses a stem sentence followed by two phrases indicated by bullets.

ITED members' interests
The members of ITED are interested in:

- Good practice in the development of training and performance programs in corporate, industrial, and other educational settings.
- Sharing professional knowledge of effective techniques for communicating.
- Applying the systematic, social, and aesthetic foundations of educational communications and technology to practical instruction projects.

ITED's concerns
As a Division of AECT, ITED's concerns are to:

- Provide a forum for exploring the professional interests of ITED members.
- Promote interaction between ITED members.
- Serve AECT as the link to education in the business community.
- Support the contributions of educational communications and technology to learning in the work place.

ITED's role in AECT
ITED's role is in coordinating the needs of members. They are interested in or associated with corporate, industrial, medical, military, and government education and training. Members typically describe themselves as performance technologists, instructional designers, training managers, professors, and consultants, among more specific occupational titles. To enable their participation in AECT there is an ongoing division of the Association which is dedicated to that function.

A formal structure is required with members serving elected terms as officers. The division is integrated into the Association's overall governance and has an official voice in order to adequately respond to the needs of members.

The objective here is the representation of members in AECT governance. It is
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ITED report identifies the Division's niche within AECT's structure

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supported by these activities: nominating and electing officers, delegates representing the Division at the Summer Leadership Conference, communications among the ITED Board, communicating with the national office, and management of the annual budget by financial planning and providing accountability for expenditures.

Interaction
Like any other AECT division, ITED serves members' needs for affiliation by occupation and for affiliation by interest. There are ongoing efforts toward coordination with similar groups inside AECT and affiliate oprganizations. An important supporting activity is the ITED Members' Breakfast and Membership Meeting at the national convention. Also, each new Board reviews ITED's self definition and revises it when necessary.

Professional development
Annually, ITED plans for convention presentations related to the professional development needs of ITED members. A program planner is assigned by the President to organize the proposals' review and to engage in convention program planning.

Information about ITED and selected archival documents will be placed on the AECT homepage. Newsletters will continue to be published depending on membership revenues and the availability of volunteer labor.

Leadership
Every two years, ITED members are elected as Division officers. This introduces them to AECT's leadership culture and enables further participation in the leadership social circle. The President appoints additional officers and delegates as needed for Division and AECT governance responsibilities.

There are other leadership activities. A convention intern is sponsored by ITED when there are sufficient funds. Intern awards are made by competition with a rigorous review process. Joint meetings on training with other professional societies are an option for exploration. To build awareness outside of ITED, the newsletter is sent to selected nonmembers, professional groups, and graduate programs.

Commentary
Strategic and tactical planning, with varying degrees of informality, are routine activities for ITED in doing what is needed. However, a formal request for a plan is interesting because that opens up sociological questions which deserve sociological answers.

For example, there are some strong indications that the success of planning varies with social function and context (see *Harvard Education Review*, 1995, pp. 504-9). A fundamental flaw is in planning becoming an extension of public relations rather than an exercise in reality testing. Another flaw is that if the organization does not know what it is doing in the first place, then it is unlikely that a demand from the top to produce a plan will help the leaders in developing good strategy.

The previous paragraph may be the only memorable one so far in this report and this sentence illustrates in a reflexive manner how the work and academic preparation of nearly all our members favors psychology. Indeed, the largest deficiency in our profession seems the lack of insights applied from disciplines such as anthropology, history, and sociology. Very little is known about the cultural aspects of instructional technology. That observation leads to the next section.

Challenges for the future
Now that the final installment of the 1993 $1,000.00 overrun has been paid back to AECT, the new ITED Board may reconsider the resources available and the Division's objectives. However, the challenges for AECT as a whole go beyond financial management and require social and cultural understanding of how the Association functions in society.

Contemporary researchers on professions such as Andrew Abbott, the Rutgers sociologist, show that professions tend not to be unified. Different groups seek and negotiate jurisdiction over various areas of work.

In our field, it is not only AECT, ISPI, ASTD, the Human Factors & Ergonomics Society's Training Technical Group, and so on, who overlap but also nonprofit organizations which began as trade shows. AECT may or may not learn from following on the heels of ICIA which had exhibited in Anaheim only months before. Either way, AECT can do well as a professional association by apllying what is known from research: professional boundary disputes tend to be settled verbally. In other words: publish, publish, and publish.

The sociological answer is not in occasional newsletters like this one (subtitled: *How Your Editor Avoided Christmas Vacation*) but in printing the Association magazine more often. *TechTrends* has greatly improved in quality as a peer reviewed publication but it is needed in members' mailboxes more often, too.

Starting in 1987, *TechTrends* was cut back from eight to six issues per year and published from September through April. However, business people work all year round. In the 1990s, many school and university colleagues do the same. They are all being neglected but AECT could work up to putting *TechTrends* in their mail boxes 12 times a year. (Similarly, if enough excellent manuscripts become available, it will do us all good to increase *ETR&D* to six issues per year.)

By the tactic of sending out a high standard magazine each month, AECT will support a strategic gain in visibility as a professional association. In the competition of professions, increasing the frequency of *TechTrends* would be a wise use of members' dues. Also, regularly providing members with *TechTrends* is a reminder of the obvious benefits of membership in AECT.

The 1971 ITED charter

Industrial Training and Education Division is organized for AECT members interested in and concerned with the improvement of communications between formal educational organizations, the producers of instructional equipment and software, and the business and industrial organizations.

In particular, its purpose is to insure that the most significant advances in educational technology (technique and media) are disseminated to interested users.

The activities of the ITED will include the promotion of the sensitive and sensible use of media and technique in improving the quality of education and training; providing a professional program which demonstrates the state of the art of educational technology as part of the AECT annual convention; improvement of communications to insure the maximum utilization of educational techniques and media which can give demonstrable, objective evidence of effectivenes.

Candidates' qualifications for election to ITED offices

The Nominating Committee presents a full slate of excellent candidates with some basic good qualities in common. Each candidate has been an active member of ITED and AECT for at least several years. All have served as ITED session chairs and presenters at AECT national conventions.

President-Elect

Peter MacDonald
Performance Technologist with Eli Lilly and Company, Indianapolis.
Ed.D. Syracuse University.
ITED Secretary 1995-1997.

Edward Mann
Systems Engineer with Storage Technology, Bethesda, MD.
M.S. in Environmental Science from University of Colorado at Denver with additional graduate courses in Instructional Technology

Two Directors-at-Large

Rebecca Rinehart Cohen
Instructional Designer with Federal Express, Memphis, TN.
Ed.D. University of Memphis.

May Lowry
Coordinator of the Corporate Training Program at the University of Colorado at Denver.
Ph.D. University of Colorado at Denver

Vicki Napper
Instructional Designer with Instruction by Design, Ogden, UT.
M.Ed. in Instructional Technology from Utah State University. Now completing dissertation toward the Ph.D.
ECT Foundation Intern 1996.
ITED Director 1995-1997.

Secretary

Alan Januszewski
Assistant Professor of Instructional Technology at SUNY Potsdam.
Ph.D. Syracuse University.
ITED Director 1995-1997.

Hyunjoo Kim
Manager, Learning Center, LG Corporate Academy, Korea.
Ph.D. Florida State University.
ITED Intern 1996.

ITED ELECTION BALLOT

Instructions Only ITED members are permitted to vote in this election. Complete the ballot below, indicating your choices for the various ITED Executive offices. Please return the ballot to arrive no later than Friday, February ', 1997.

ITED members may vote by either mailing th' ballot to:

Dr. Andrew R. J. Yeaman

9016 Vance St. #305

Westminster, CO 80021-6496

or FAX this ballot to: (303) 940-7994

or email your choices to: ayeaman@carbon.cudenver.edu

President-Elect (vote for one)

[ ] Peter MacDonald

[ ] Edward Mann

Two Directors-at-Large (vote for two)

[ ] Rebecca Rinehart Cohen

[ ] May Lowry

[ ] Vicki Napper

Secretary (vote for one)

[ ] Alan Januszewski

[ ] Hyunjo~ Kim

ITED membership applications invited from AECT members and nonmembers

The Industrial Training and Education Division (ITED) is for all AECT members interested in:

- Designing, planning, evaluating, and managing training and performance programs.
- Promoting appropriate uses of educational techniques and media.

Send this form (or a copy) to
Association for Educational Communications & Technology
1025 Vermont Ave. NW # 820
Washington, DC 20005

Call (202) 347-7834 to inquire about dues rates for students, international, and corporate memberships.

Please check the appropriate boxes:

☐ I am already an AECT Member and wish to join ITED.
Division fee: $10 (20% goes to the AECT national office.)

☐ I wish to join both AECT and ITED.
Regular membership: $75. (AECT, ITED, and *TechTrends* subscription.)
Comprehensive membership: $110*

☐ Please bill me.

☐ My check or money order for $_____, payable to AECT, is enclosed.

☐ Charge dues in the amount of $_____ to my credit card.

☐ MasterCard ☐ VISA

Account # _____ Exp. Date _____

Signature _____ Tel. _____

Name _____ Title _____

Address _____

_____

* Also includes *Educational Technology Research & Development (ETR&D).*

ITED NEWSLETTER
Dr. Andrew R. J. Yeaman
9016 Vance St. #305
Westminster, CO 80021-6496

FIRST CLASS MAIL